State of IT: 2016

Wondering what lies ahead for the remainder of the year? Ready for SP 2016? How about the cloud wars? And have Microsoft and Apple found common ground? Read on to find out.

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a long-awaited release: sharepoint 2016

Now that 2016 is finally here, we can start counting down the days until the formal release of Microsoft's SharePoint 2016. It's been 3 long years since we've been treated to a new full version of SharePoint, so here's a short rundown of what we can expect with this year's General Availability release this Spring:

Provisioning Improvement

The processing times of individual tasks will be significantly decreased, effectively speeding up SharePoint's handling of administrative tasks.

Hybrid Cloud Search

In-line with Microsoft's embrace of the hybrid approach (i.e., any combination of on-prem and cloud deployments), SharePoint 2016 will feature some powerful search capabilities. By indexing on-prem content in the cloud, SP 2016 will be able to search for content that is located in both on-premises and Office 365 environments.

File Sharing

A new "Share" button, located at the top of every SharePoint screen, will facilitate the easy sharing of content with colleagues — just click Share, enter name(s), and that's it!

Mobile Usability

Microsoft has expanded their device agnostic capabilities to support SharePoint 2016 across multiple devices, regardless of screen size. Data synchronization has also been streamlined.

Efficient Site Creation

Creating a new site in SP 2013 was sometimes an arduous & laborious experience. The 2016 version uses templates to quickly crank-out sites without the wait.

Compliance

There have been some significant updates in terms of compliance capabilities. The Compliance Center will now enable Admins to implement comprehensive data security controls. In addition, documents can be configured for auto-deletion — a valuable feature for compliant-sensitive industries, such as Healthcare and Financial Services!

Scalability Improvements

Content databases will now scale into the terabytes, you can have up to 100k site collections per database (from 20k), and the list view threshold is now over 5,000 items.

Security Changes

In a bid to ease the transition of on-prem architectures to more cloud-friendly options, SharePoint 2016 features some key security measures: SAML claim-based authentication, TLS support for SMTP connections, and 51 new compliance rules for data protection (Data Loss Prevention).

cloud wars 2016: the rise of azure

Granted that the header is reminiscent of a new Hollywood action blockbuster movie, but this year will continue to bear witness to a heated cloud battle between Microsoft, Amazon, and Google. What's at stake? A share of a multi-billion dollar business segment that is responsible for the fastest growth in the IT world: the cloud. Everyone wants a piece of the action, so let's look at the tale of the tape:

Microsoft Azure

Microsoft's flagship cloud offering, Azure, is currently trailing Amazon Web Services: 32% of the cloud market share for AWS vs. 8% for Azure. As of this year, though, Microsoft Azure is officially growing at a faster rate (in terms of revenue) than AWS. The growth is fueled largely by its high value cloud service offerings, such as Office 365 and SharePoint. Unlike AWS, which is primarily an IaaS platform for Web apps and startups, Azure offers both PaaS and IaaS architectures, both of which seamlessly support installations of Microsoft products. Microsoft has a lot of positives going for it: the world's leading home computing platform, the world's leading productivity platform, and a cloud infrastructure that supports hybrid deployments. Azure is marketed heavily to other businesses and is user-friendly enough to be adopted with minimal service disruptions.

Amazon Web Services

Amazon took the IT world by storm when it offered its cloud-based IaaS platform, AWS, at a low cost to the general public. It seems obvious now that Microsoft and Google were caught unawares, as AWS' quick entry to market provided Amazon with at least a 7 year headstart. AWS earned $7.8 billion in 2015 and is expected to grow by at least 50% this year, making Amazon the fastest growing enterprise software company of all time. Although AWS currently dominates the cloud market and is growing at a good pace, its competition is rapidly catching up. The main challenge that will be faced by AWS is its scope and target market: in the cloud world, AWS is a one-trick pony — it's just an IaaS. There are no complementary cloud-based platforms (ala Microsoft) and no out-of-the-box technologies to set it apart (ala Google). AWS' target market is comprised of companies who require raw computing power — Microsoft, however, offers both computing power and highly developed managed services. AWS is the top dog, but its days may be numbered.

Google Cloud Platform

If this was a horserace, then Google would be the stallion at the back of the pack working harder than all the rest to reach the finish line first. Google has many of the core tools required to be a cloud services provider, thanks largely to massive infrastructure investments in support of its consumer offerings, Gmail and Google Search. However, the company only recently decided to leverage its infrastructure in order to get into the B2B cloud services market. Google has the edge in search and AI technology, which could work in its favor in terms of becoming a heavy-hitter in the competitive cloud space. The latest IT trend is data science, predictive analytics, and artificial intelligence: essentially using computing power to discern the most likely outcomes and then transforming that information into actionable business solutions. Microsoft is working hard on these technologies (Office Delve and Graph), but Google has dedicated years to AI. If Google can monetize its work within a cloud framework, then it has the capability to be a legitimate contender.

microsoft's age of discovery

For years now we've watched Google experiment with real-world applications of technology, from Google Glass to Google's self-driving cars — the company is famous for its dedication to innovation and futuristic technology. As 2016 gets underway, Microsoft has found itself taking a page out of Google's playbook in terms of innovation. While Microsoft (probably) won't be building vehicles any time soon, they are leveraging their productivity app dominance by expanding into new markets. This even includes long-time rival Apple.

On the hardware and OS front, the two companies are—and ever will be—strident competitors. Whenever Apple introduces a new product, such as the iPad Pro, its management invariably encourages their potential customers to ditch their old Windows systems and get on-board the Apple train. On the software front, however, there is a bit of rapprochement: Apple is now promoting Microsoft Office 365 as an iPad Pro add-on. It seems that the reality of Apple's dismal showing in the productivity market (Apple Numbers? Pages?) has finally sunk-in. When it comes to Apple vs Microsoft, at least in the world of productivity software, the old adage applies: if you can't beat them, join them.

In addition to Apple users, another new market for Microsoft is the creative market. Traditionally the home of Adobe, the creative app industry has long been the realm of products like Photoshop, Creative Cloud, and Illustrator. Microsoft is jumping into the fray with a new product called Sway. Sway is branded as a "digital storytelling" platform and is benefitting from significant attention from Microsoft, with roughly 13% of all new Office 365 development being Sway-related. It is a presentation app that enables users to add a variety of content from nearly any online source or from a device such as a smartphone or tablet. Sway then uses its algorithms and design styles to format, arrange, and present the content based on user-supplied preferences (e.g., giving priority to certain photos). Suggested end products include reports, presentations, newsletters, and personal stories. To summarize, Sway is a blank canvas with intelligent design mechanisms working behind-the-scenes — you supply the content and Sway makes it beautiful.

For the Education sector, we have Microsoft Mix. Mix is a PowerPoint add-in available in both Office 365 and Office 2013+. It enables users to add rich media content and interactivity to their PowerPoint presentations. The primary feature set in Mix is its audio & video recording capabilities along with presentation-oriented tools, such as drawing on the screen. Users can also add polls, quizzes, and interactive apps. As expected, the default save for a new "Mix" is the cloud (office. com) with Web-based accessibility and social media sharing. Mix is currently a bit of a niche add-in designed specifically for the Education market, but it could gain traction at the enterprise level if there's an interest and if it's marketed intelligently by Microsoft. Currently the feature sets revolve around the needs of educators, such as quizzes and interactive polls, both of which are designed to enable teachers to engage with students.

Microsoft's forays into productivity apps for Apple, education add-ins, and creative sector apps is indicative of an overall expansion by Microsoft into new territory. The company has already sealed-up the productivity market and is on course to eventually surpass Amazon in the cloud market. With all systems go, the only arena left for expansion are industries previously unexplored by Microsoft. This age of discovery will give birth to a range of new solutions. Although we can only guess about the nature of these future apps, we can be sure that they'll be cloud and mobile friendly.
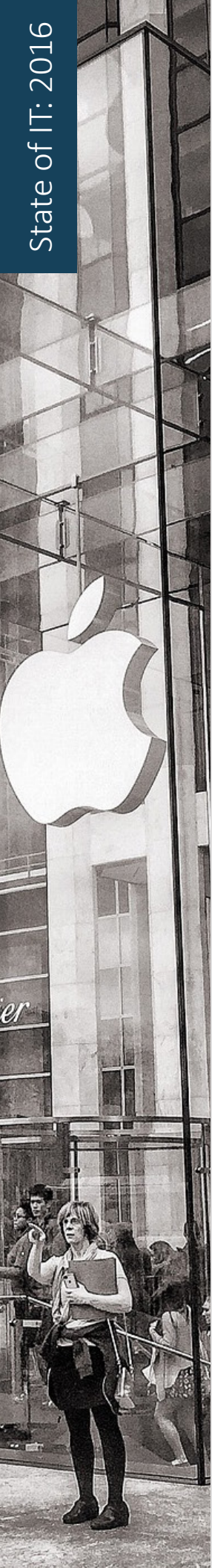
the next big thing: predictive analytics

The next big trend in computing is predictive analytics. Predictive analytics is the science of combining datasets (usually Big Data), cleansing/formatting the data, and using machine learning algorithms to create predictive models. These models are designed to reliably forecast the likelihood of events given trends in supplied data. Predictive analytics is in its infancy, but has the capability to make a significant impact on how businesses can engage with customers more successfully.

Microsoft has delved into the world of predictive analytics with their new products, Office Graph and Office Delve. Office Graph, the brawn of the duo, uses machine learning and predictive analytics to map connections between people and information. Graph retrieves, cleanses, parses, and formats a tremendous amount of raw data using Office 365 environments as its source pool — specifically, SharePoint, OneDrive for Business, Office 365 videos, e-mail attachments, user actions, and Yammer. All of that information is then mapped to individual Office 365 users, effectively connecting together vast quantities of knowledge with all of the people who somehow interacted with that knowledge. Between October 2014 and March 2015, Office Graph mapped over 6 billion actions and interactions.

Graph's little brother, Office Delve, is the brains of the pair — its job is to elegantly present selected content to Office 365 users. The type of "selected content" is special because it is highly relevant to individual users. For example, if Michelle has a meeting at 11am, Delve will proactively retrieve all content that is related to that meeting and then present it to Michelle in a dynamic card-based interface before the meeting starts. This saves Michelle the effort of having to search through e-mails, organize files, and assemble notes. It has all been done for her already.

Meetings are just one example of using an event as a presentation trigger — Delve also leverages user searches to present relevant content. In addition, users can click on content filters to view highly specific information, such as "shared with me," "liked by me," "modified by me," "viewed by me," "presented to me," and "trending around me." Continuously producing predictive insights improves the overall accuracy and reliability of a machine learning system, particularly when user feedback is taken into consideration. With maturity, the back-end (Graph) becomes more efficient, user data grows, and the front-end (Delve) can present more refined content.

Obviously, the potential here is huge. Microsoft is making a significant investment in these new apps, particularly Office Graph. Delve is simply the first app to be powered by Graph; as explained by Julia White, the GM of Office 365 Technical Product Management, "Delve is the first of many experiences we will release, tapping into the connections and insights from Office Graph."

The real issue here is whether or not Microsoft realizes the gold-mine that they are sitting on. At the moment, the scope of Office Delve is quite limited — to the point where it's quickly falling into the category of becoming an overpowered social intranet portal. With the right APIs, Office Graph could include data from a wide array of data sources outside of Office 365, such as SAP and Salesforce. This would enable Office Graph to power an entire family of presentation layer apps with the capability to present content that truly reflects user interests. The appeal of this must be obvious to Microsoft's upper management, as it would further strengthen the branding of Office 365 as the ultimate productivity platform — a one-stop-shop for meaningful content.

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