

A man with dark hair and a goatee, wearing a purple shirt, is shown in profile, resting his chin on his hand and looking thoughtfully towards the camera. He is in an office environment with computer monitors and desks visible in the background.

Migrating SharePoint to the Cloud:

Lessons Learned by Microsoft IT
Jared Shockley, Sr. Site Reliability Engineer

Get ready to be what's next.

No need to take pictures!
This deck will be available online at:
<http://jshoq.me/spsden2018thanks>



Jared Shockley – <http://jaredontech.com>

Senior Site Reliability Engineer

Run and improve internal/external services used by developers world-wide (Azure DevOps, 1ES)

Prior Experience

Service Owner/Sr. Svc. Eng. SharePoint - MSIT
Director of IT Services, Medical Practice
Service Owner, Microsoft IT – Finance IT

Primary Experience Areas

SharePoint and Office 365
Azure Cloud Services
IT Service Management, Governance,
Compliance



 @jshoq

 /in/jaredshockley

 /JaredOnTech

Agenda

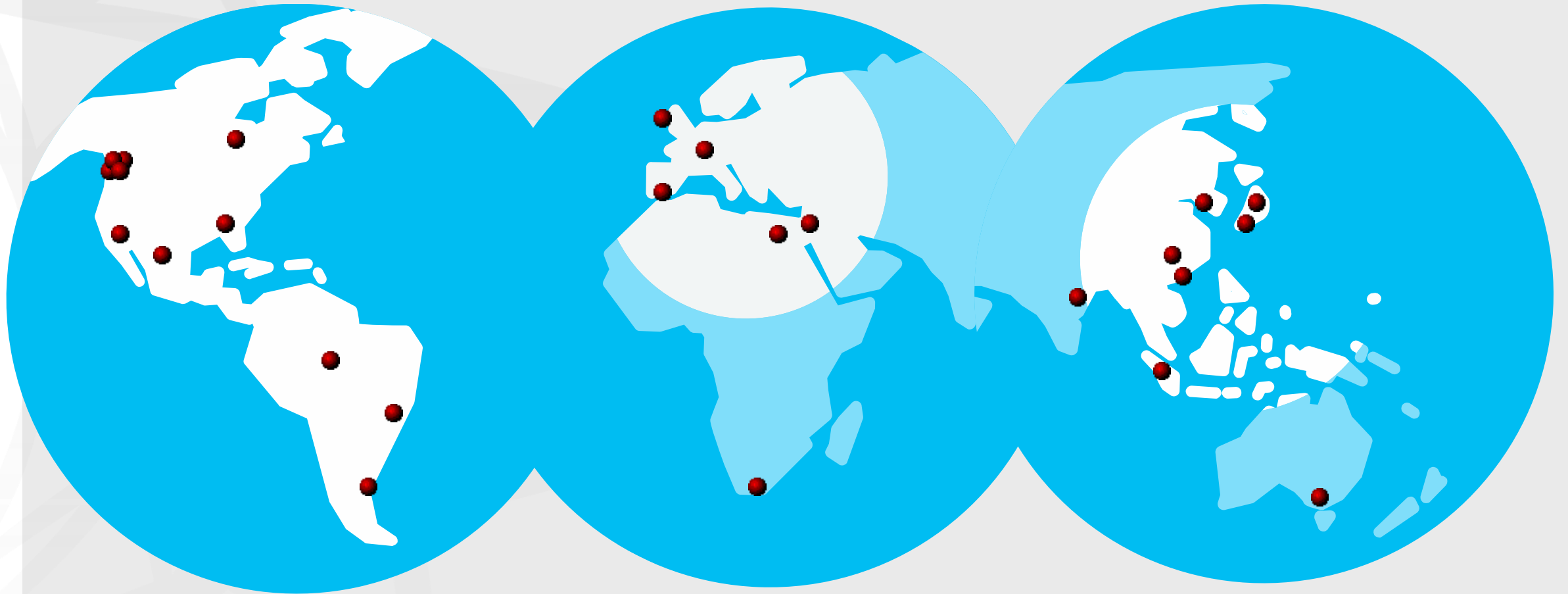


Microsoft IT SharePoint offerings

IT Prep for Migrations

Office 365 migrations

MS IT collaboration environment yesterday



- Americas -

- Europe - Middle East -
- Africa -

- Asia Pacific -

MS IT collaboration environment post-migration



- Americas -

- Europe - Middle East -
- Africa -

- Asia Pacific -

MSIT Exchange and SharePoint environment future



- Americas -



- Europe - Middle East -
- Africa -



- Asia Pacific -

SharePoint big picture

Pre-migration

Utility migrations

//Team

//SharePoint

//SharePointEMEA

//SharePointAsia

Extranet

Custom

Platinum portals
(MSW, ITWeb, etc)

Complex portals
(HRWeb, Records, etc)

//Portals

Current state

Cloud

Office 365

Azure

On-premises

Transition

Complex customizations

BI

Extranet

Shared Services

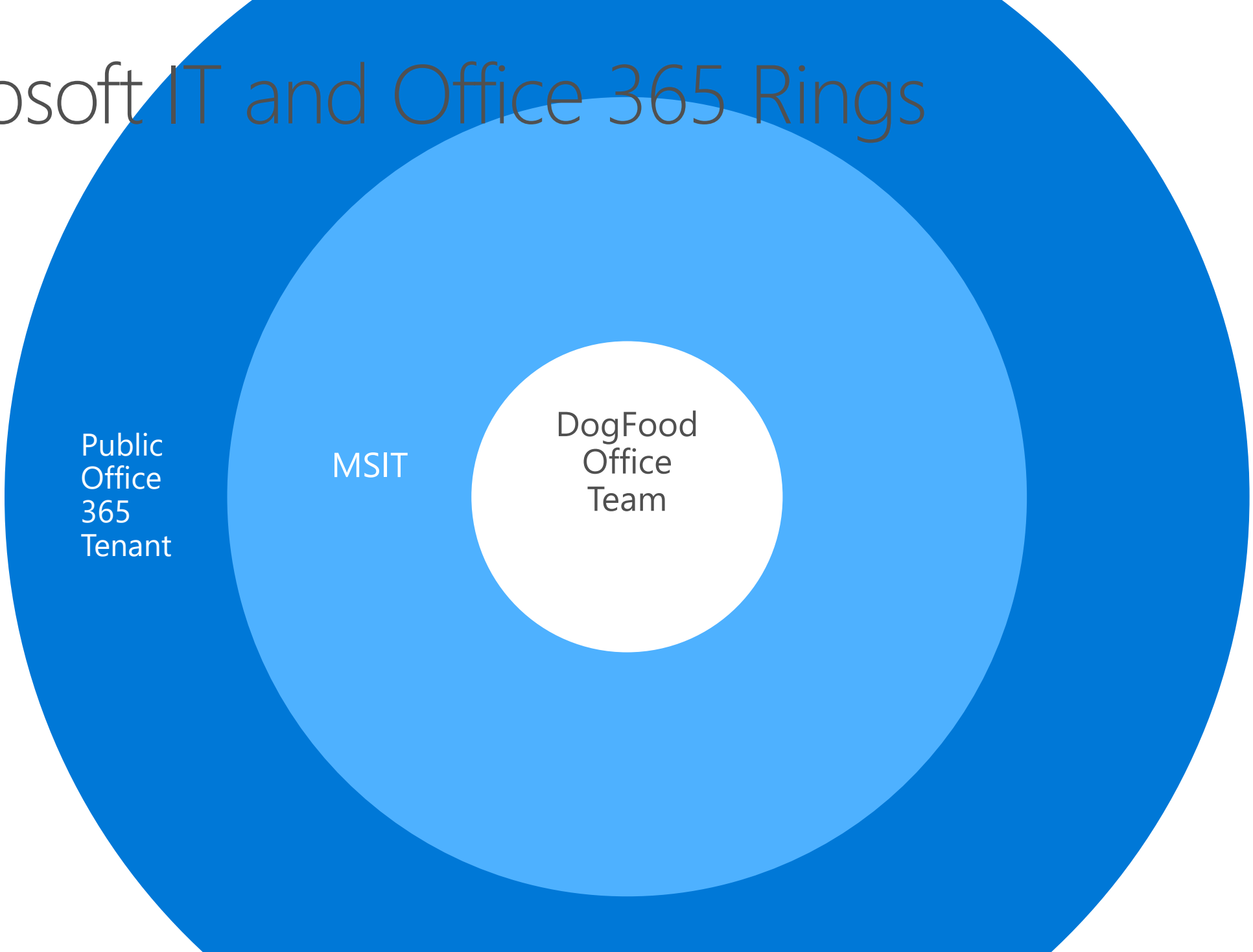
Transition

Search

Profile

Taxonomy (MMS)

Microsoft IT and Office 365 Rings



Public
Office
365
Tenant

MSIT

DogFood
Office
Team

Think about this

- How do you plan for a migration?
- What are the types of concerns you have with migrating?
- When considering a migration, what do you do first?



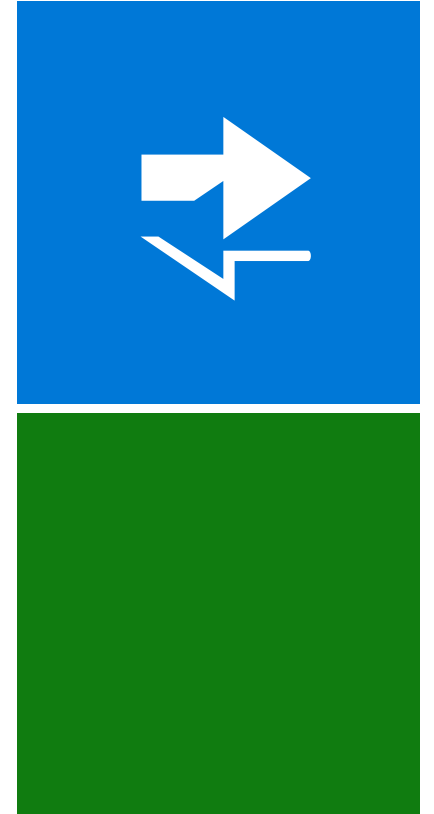
Microsoft IT Migration



Migration philosophy
Preparing for Migration
Supporting the Migration
Lessons learned

SPO Migration Philosophy

- Detect issues early
- Keep administrator informed
- Prevent perceived data loss



Preparing for migration

Build test/dogfood sites

Evaluate new features and services

Supported migration methods

Milestone definitions/Project plan

What do we have?

- Inventory and shape of DBs
- Customizations, features, LPKs, Web Parts

Dry run

- “Dogfood Champions”
- How will we do it in production?



Microsoft IT Migration – Dry Runs

Establish new sites for each site to be migrated

Backup on-prem production content

Mimic actual production migration scenarios

Automate build-out, Script migration

Parallel migrations

Check with your networking team on this!

Audit

Resolve all identified errors and do again



Production upgrade preparation

Customer communication

Final Dry-Run with Customer validation

- Identify critical sites

- Customer should validate Dry-run

Site identification and remediation

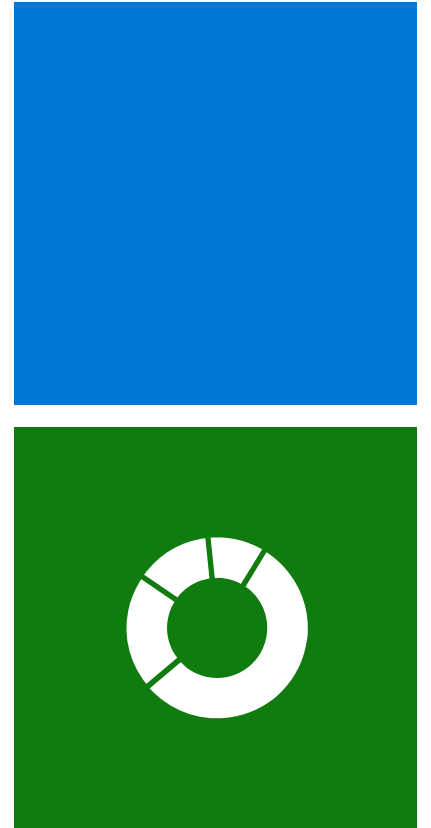
Pre-migration preparation

- Backups

- Redirects (if you are going to use them)

- Roll back plans

Customer communication



Migration Support

War rooms established

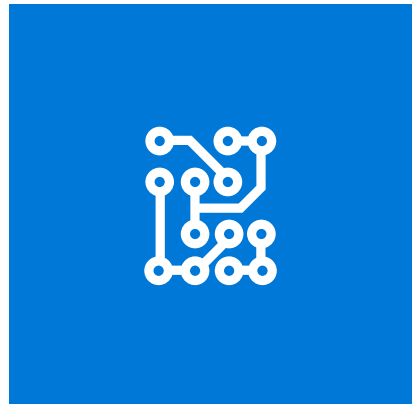
Physical Room

Virtual via Skype for Business

Heightened support post-migration

Keep old on-prem farm online to validate issues

Communicate each step to customers and stakeholders



Lessons Learned

Clean up

Clean up early in the process prior to upgrade, or pay upgrade-tax repeatedly.

Treat dry-run testing like production

Use real data on SPO Test sites and test everything for best results.

Production migration operations are not the time to learn anything new.

Migration is a science

Test carefully—do not skip errors or warnings.

Make operations procedural and repeatable.

Automate, Automate, Automate!



Microsoft IT Office 365 Migration



New collaboration for employees

Migration Options

Case study: MSWeb

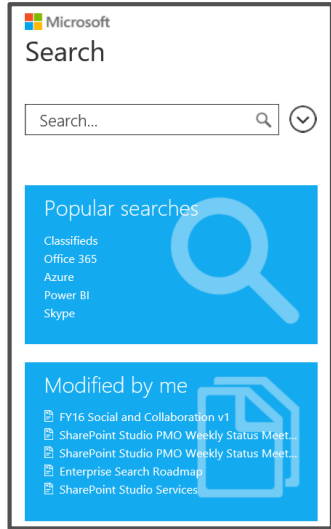
Guiding principles for migration

Technical considerations

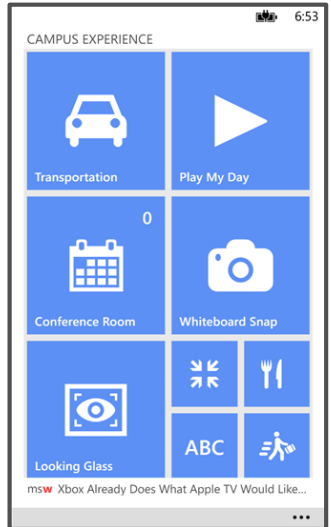
Refactoring the past

Microsoft connected employee experience

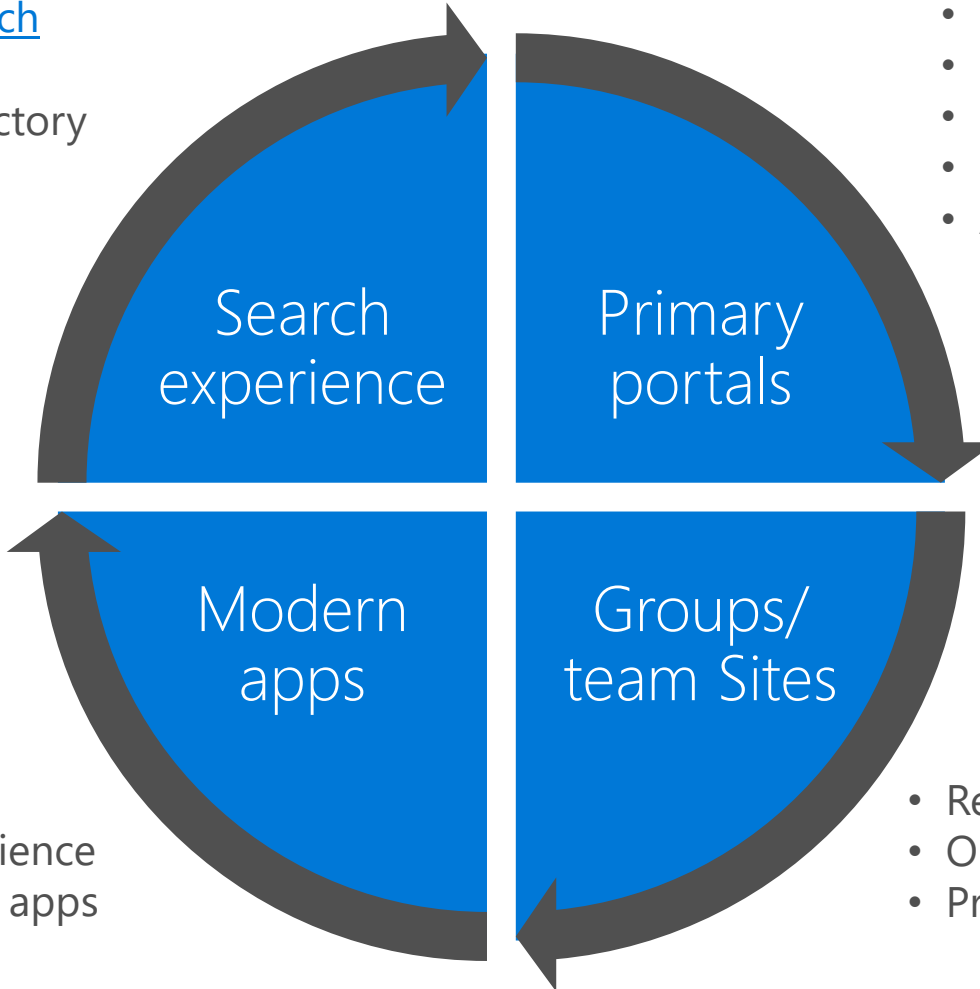
Social by design



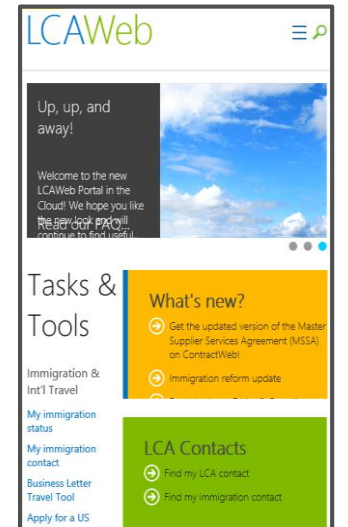
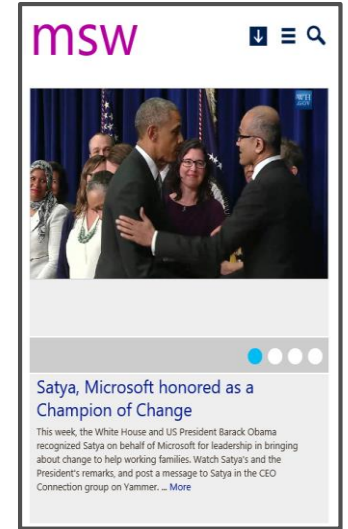
- Enterprise [Search](#)
- Quick Actions
- Enterprise Directory
- News & Events
- People



- Start Here
- NewsMix
- Campus Experience
- Other primary apps



- MSW
- HR Web
- IT Web
- Unify / InfoPedia
- Academy



- Regional portals
- Organizational sites
- Programs and projects

The transformation of communication

Organizational silos

Disconnected employee engagement



Connected enterprise

Connected employee engagement



Migration Options

Start Fresh

- Abandon current On-Premises
- Ideal for archiving/closed sites

New self-service utility sites (↓ 59k to 26k in 1 year) & MySites

As-is Migration ("Lift & Shift")

- Move site content as-is
- Ideal approach for basic sites, but lose option to take advantage of new features

Active self-service utility sites

Partial Move

- Move selected content ("hybrid" or revised)
- Option to rework site as needed
- Leverage 3rd party tools (Microsoft IT uses Metavis)

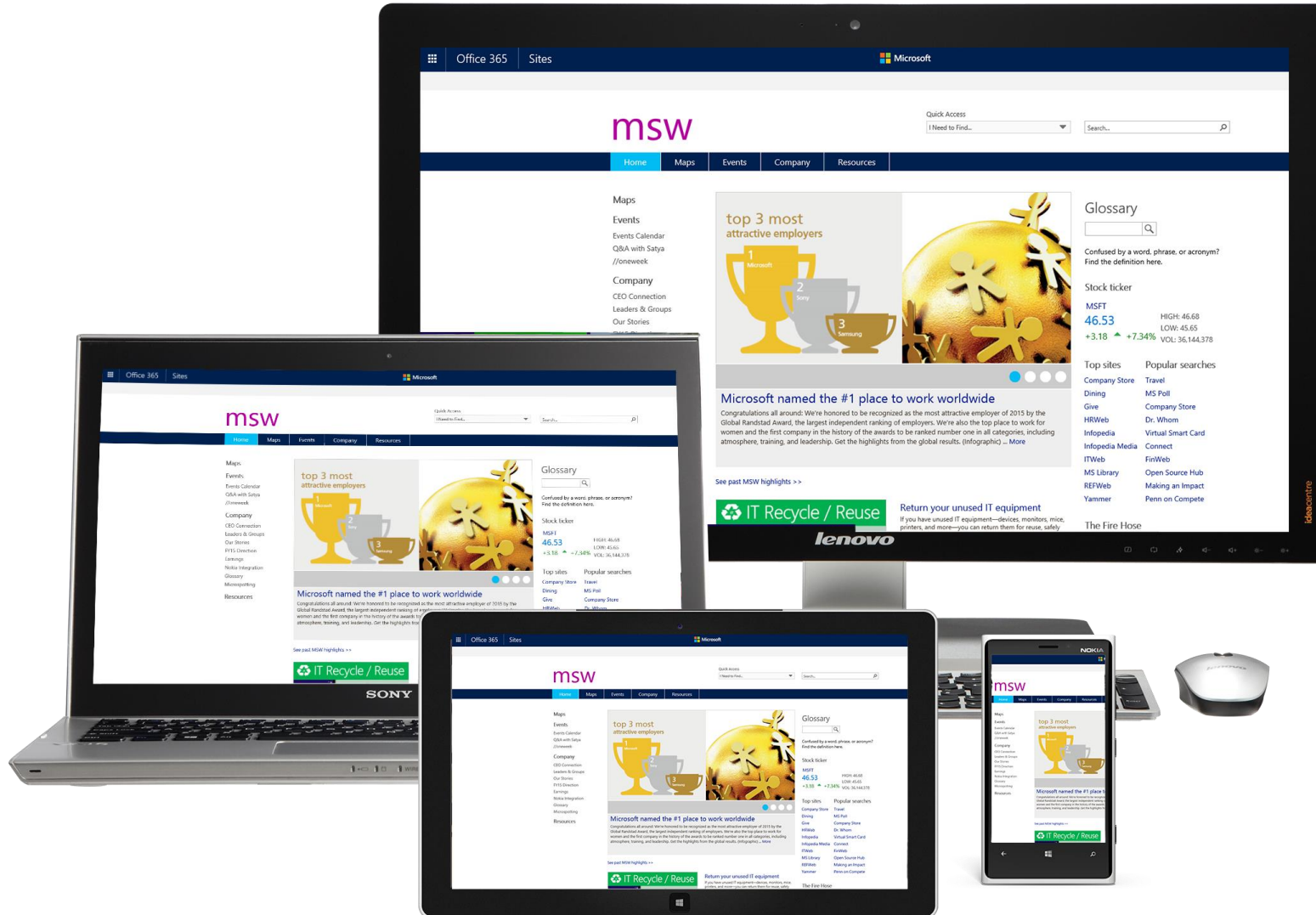
Divisional farms with mixed site types

Rethink

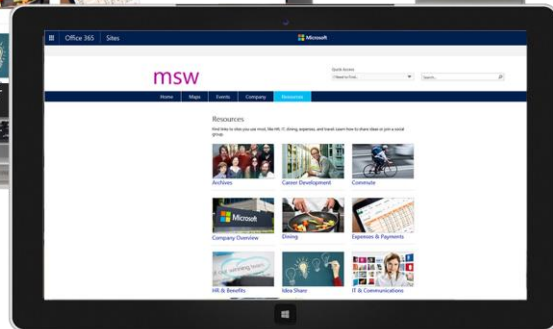
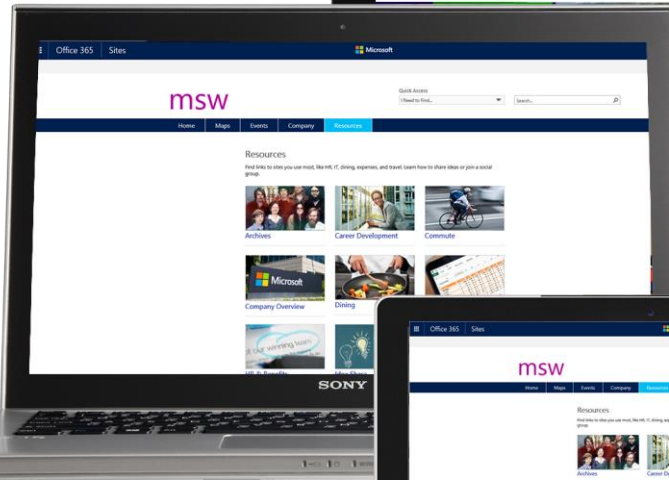
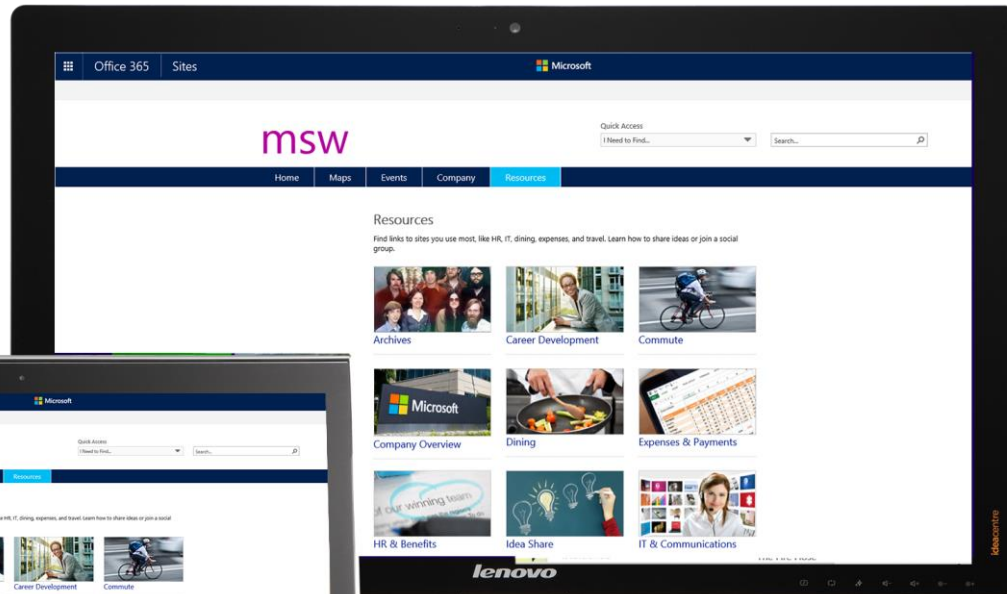
- Re-architect for capabilities
- New information architecture
- Suggested approach for custom sites and publishing portals

Major portals & apps

MSW – Microsoft's Employee Portal



Starting Point on the Intranet



Employees come to MSW to:

Read news about our company

Search the entire intranet from the homepage

Find commonly used sites & tasks from our resources tab

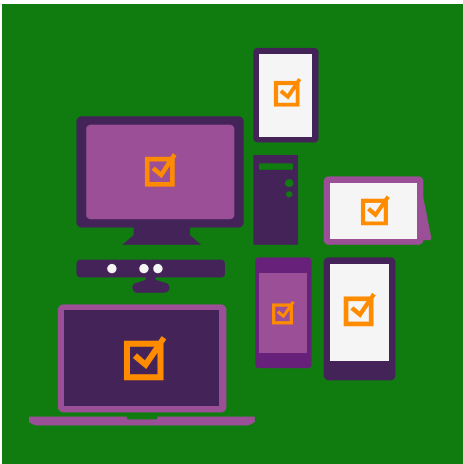
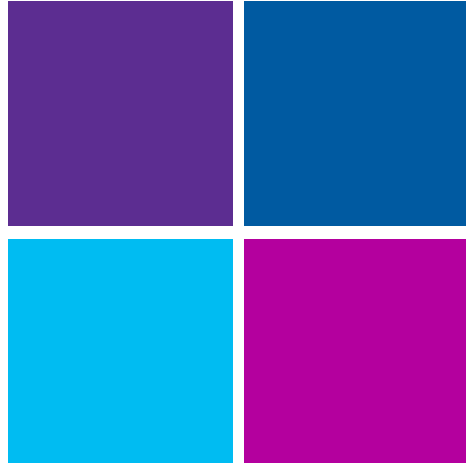
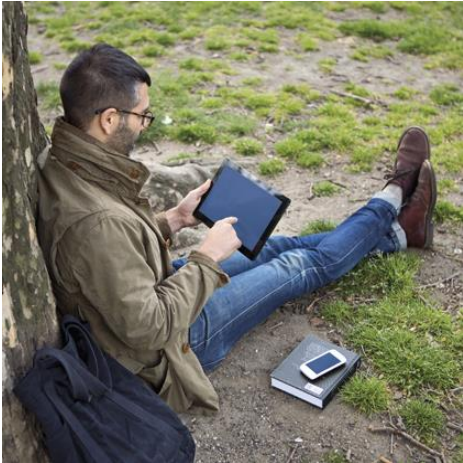
Use interactive campus and building maps

Business migration principals for MSW

- Publishing equivalency if not better
- Cost to manage portal < on premises
- Make beautiful on any device and accessible from any location
- Deliver quickly & simply
 - Do not refactor overall portal information architecture & content
- Parity with most capabilities non-negotiable
 - MSIT negotiated to remove "Weather" part but Campus Maps was mandatory



IT migration principals for MSW



- **Be out of the box as much as possible**
 - Minimize customizations
- **Render well across devices**
 - Remove fixed-width desktop target
- **Re-usable responsive design package**
 - Minimize impact of Microsoft IT custom design on SP compatibility
 - Minimize fix-it cost for MSFT
- **Standard content schemas**
 - MSW News using enterprise content-type: Approved News Item
- **Separate content from UI**
 - Rich application deliver targeted experiences
 - Focus on content, not site design

Responsive design

- One page, multiple experiences
 - Reflow page to optimize UI
 - Simpler to manage than building for unique device channels
 - Not as optimal as per device experiences / native apps
- Challenges come with various devices
- Based on community frameworks
- Work goes beyond framework/package



O365 performance considerations

- Caching differences between on-premise and cloud
 - Don't bet on server-side caching for dynamic pages
 - On-premise MSW had 6 CFE, Microsoft.sharepoint.com >100
- Content By Query part was expensive, replacement options
 - Content by Search
 - Best option but may not be viable if freshness is not acceptable
 - JSLink view customization of List view web part
 - Client-side asynchronous list-based look-ups using the CSOM



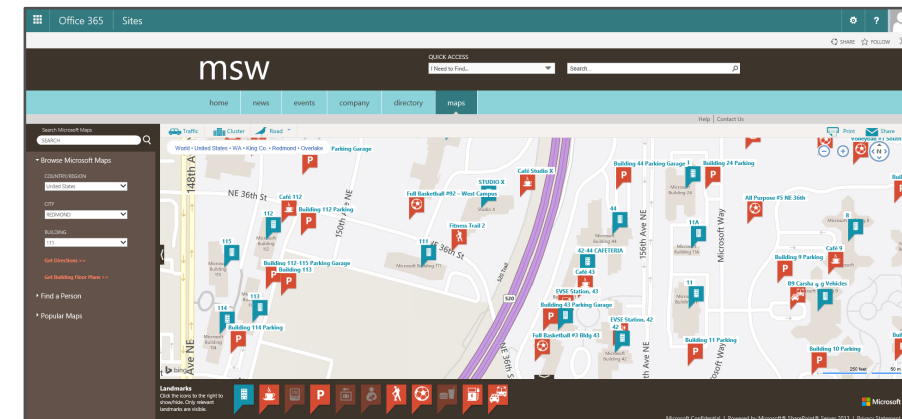
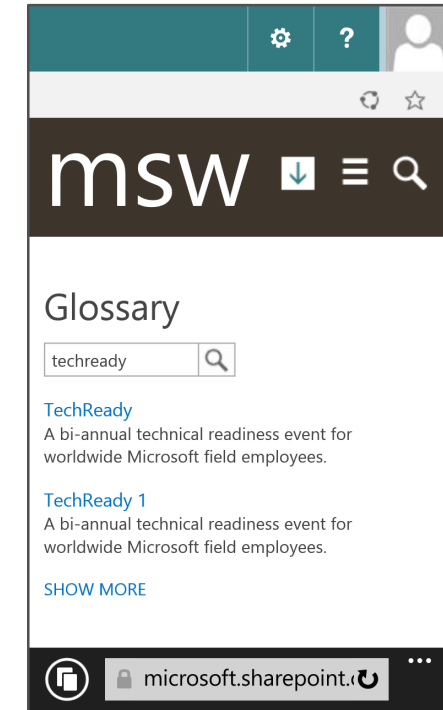
Considering navigation



- Retain the O365 app launcher
- Be careful with migrating navigation
 - MSW using the Structural navigation added 3+ seconds to each page load
- MSW now uses Metadata managed navigation
 - Ideal for complex sites but not security trimmed
- Structural navigation
 - Better for simple sites where security trimming is required
 - DO NOT use this on SharePoint Online unless you have a simple site structure
- Search driven navigation
 - Good choice for complex sites where security trimming is required
 - Custom, not used by Microsoft IT

Refactoring full trust solutions

- Performed analysis on custom solutions to determine options— simplify where viable
 - Retire, Refactor, Replace with OOB or from catalog
- Identified equivalent Out-of-the-Box options in O365
- Moved from full trust to SharePoint provider hosted
 - Glossary— Term Lookup solution from Metadata store
 - Slideshow— Picture galleries
- Moved from full trust to Azure provider hosted
 - Campus Maps: Mashup of Bing Maps & LOB geo-reference data
 - Page Mailer: Deliver Page to email (newsletters from portal)



Glossary app

msw QUICK ACCESS I Need to Find...

home news events company directory maps

ceo connection
fy15 direction
leaders & groups
values
nokia integration
earnings
glossary

Glossary

techready

[TechReady](#)
A bi-annual technical readiness event for worldwide Microsoft field employees.

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Enter a term in the **Glossary** box above, and then click the magnifying glass or press ENTER.

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Terms and definitions are provided by [Microsoft Corporate Taxonomy Services](#) (internal use only).

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msw

techready

[TechReady](#)
A bi-annual technical readiness event for worldwide Microsoft field employees.

[TechReady 1](#)
A bi-annual technical readiness event for worldwide Microsoft field employees.

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microsoft.sharepoint.

Slideshow app

The screenshot shows the msw website interface. At the top left is the 'msw' logo. To its right is a 'QUICK ACCESS' search bar with the placeholder text 'I Need to Find...'. Below the logo is a navigation menu with links for 'home', 'news', 'events', 'company', 'directory', and 'maps'. On the left side, there is a sidebar with categories: 'inside track' (with sub-links like Awards & Achievements, Business & Finance, etc.), 'industry news', 'microsoft's pov', 'news app', 'slideshows', 'mpsn live', and 'microspotting' (with sub-links like MS Archives, Model Shop, etc.). The main content area features a news article titled 'Affordable Phones' dated '17/09/2014'. The article text reads: 'After Microsoft made a few changes to its business model, OEM partners started to crank out an array of new Windows Phone devices. Check out this slideshow for a taste of what these partners are starting to roll out.' Below the text is a large image of a Windows Phone device displaying the OS interface, and three back cases in blue, black, and yellow. Below the image is a horizontal navigation bar with left and right arrows and a series of small thumbnail images representing the slideshow items. The article title 'ARCHOS 40 Cesium' is displayed below the navigation bar, followed by a short description: 'French OEM ARCHOS unveiled its first Windows Phone device, the ARCHOS 40 Cesium. It has a 4-inch display and comes with three back cases in yellow, blue, and black. It will be available in September for \$99. The ARCHOS 80 Cesium 8-inch tablet with Windows 8.1 will be available in October for \$149.' A 'Share' button is located at the bottom left of the article content.

The screenshot shows a mobile application interface. At the top, there is a teal header bar with three icons: a gear (settings), a question mark (help), and a person icon (profile). Below the header is a light gray bar with a refresh icon and a star icon. The main content area features a news article titled 'Affordable Phones' dated '17/09/2014'. The article text reads: 'After Microsoft made a few changes to its business model, OEM partners started to crank out an array of new Windows Phone devices. Check out this slideshow for a taste of what these partners are starting to roll out.' Below the text is a large image of a Windows Phone device displaying the OS interface, and three back cases in blue, black, and yellow. Below the image is a horizontal navigation bar with left and right arrows and a mail icon. At the bottom of the screen is a dark bar with a square icon, a lock icon, the text 'microsoft.sharepoint.', a refresh icon, and three dots.

Campus Maps app

The screenshot displays the Microsoft Campus Maps app interface. At the top, there is a navigation bar with "Office 365" and "Sites" on the left, and settings and help icons on the right. Below this is a dark header with the "msw" logo, a "QUICK ACCESS" dropdown menu, and a search bar. A secondary navigation bar contains links for "home", "news", "events", "company", "directory", and "maps" (which is highlighted). To the right of this bar are "Help" and "Contact Us" links.

The main content area features a map of the Microsoft campus in Redmond, WA. The map is overlaid with various icons and labels for buildings, parking areas, and landmarks. Labels include "Café Studio X", "Full Basketball #92 - West Campus", "STUDIO X", "Fitness Trail 2", "Café 112", "Building 112 Parking", "Building 112-115 Parking Garage", "Building 113", "Microsoft Building 111", "Microsoft Building 115", "Microsoft Building 114", "Building 114 Parking", "42-44 CAFETERIA", "Café 43", "EVSE Station, 43", "Building 43 Parking Garage", "Full Basketball #3 Bldg 43", "EVSE Station, 42", "Microsoft Building 42", "Building 11 Parking", "Building 11A", "Microsoft Building 11A", "Microsoft Building 24", "Building 44 Parking Garage", "Building 24 Parking", "All Purpose #5 NE 36th", "Café 9", "Building 9 Parking", "B9 Carsharing Vehicles", "Building 10 Parking", and "Microsoft Building 8".

On the left side, there is a sidebar with a search bar and a "Browse Microsoft Maps" section. This section includes dropdown menus for "COUNTRY/REGION" (United States), "CITY" (REDMOND), and "BUILDING" (111). Below these are links for "Get Directions >>" and "Get Building Floor Plans >>". Further down are sections for "Find a Person" and "Popular Maps".

At the bottom of the map area, there is a "Landmarks" section with a row of icons representing different types of landmarks: a building, a coffee cup, a stadium, a parking 'P' sign, a person, a person with a backpack, a soccer ball, a burger, a person with a laptop, and a person with a shopping bag. A text box below the icons reads: "Click the icons to the right to show/hide. Only relevant landmarks are visible." A scale bar at the bottom right indicates 250 feet and 50 meters.

The footer of the page contains the Microsoft logo and the text: "Microsoft Confidential | Powered by Microsoft® SharePoint® Server 2013 | Privacy Statement".

Page Mailer app

home news events company directory maps

news Create


Inside Track
Industry News
Microsoft's POV
News App
Slideshows
MPSN Live
Microspotting


events
Events Calendar
Breakfast Series
//oneweek


company
CEO Connection
FY15 Direction
Leaders & Groups
Nokia Integration
Earnings
Glossary

directory

maps

From: mswnews@microsoft.com 

Reviewer: v-jasie@microsoft.com; cduffy@microsoft.com; v-kaunul@microsoft.com; mswpub@microsoft.com 

To: 


Subject: Inside Track – Week in Review: June 30–July 04, 2014

Page Mailer email content is below this line.

msw

INSIDE TRACK WEEK IN REVIEW

For the Week of December 29, 2014–January 2, 2015



TOP STORY OF THE WEEK

Healing Childhood Strokes with Help from Kinect

Jan 6, 2015

When an employee's son suffered a stroke, he and his wife took matters into their own hands. Now, thanks to Microsoft technology, countless children stand to benefit.

[More](#)

Lessons Learned

Define your project principles

Define from both the business/customer and IT project perspectives.

Determine the best migration method

Review all of the content and data on older systems for migration to cloud.
Do not be afraid to let go of the past.

Focus to simplify SharePoint customizations

Review all processes and customizations.
Remove customizations that are not needed anymore.
Use more "Out Of the Box" (OOB) processes.

Embrace Cloud App Model for customizations

Move your development for both the cloud and on-prem



Microsoft IT Showcase

How Microsoft does IT

On-Demand Online Recordings

In-person Classroom

Online Interactive Webinars

- Next SharePoint on 9/28

Individualized Phone Conferences

Areas of Learning

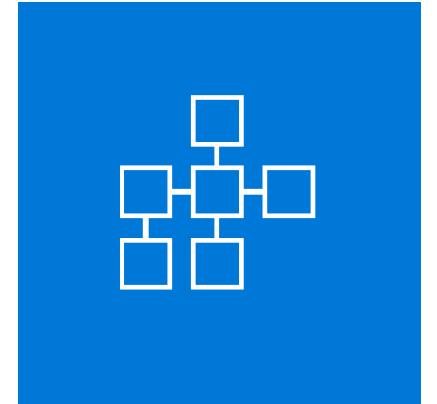
SharePoint

Cloud

Office 365

Find out more

<http://microsoft.com/itshowcase/>



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