

# Windows 8.1 Deployment

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# Deployment Challenges

Configuration Settings



Content Management



Compliance Standards



Configuration Standards



preserve User Settings and Files



Configuration Drift

## The Managed Desktop Solution

Application life cycle

Hardware life cycle **Enterprise desktop stack** 

User settings

Individual applications

**Role-based applications** 

Enterprise applications

Security configuration

Hardware-based software and drivers

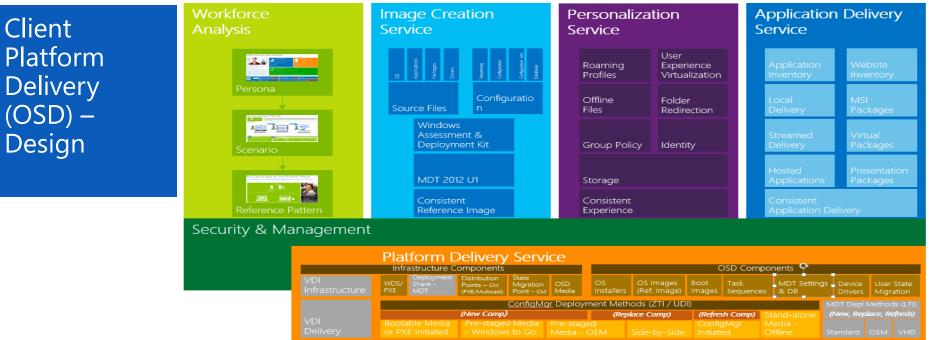
Operating system master image

image deployment User profile management

Security management

Image engineering

#### **Client Solution Architecture**



#### MSIT Easy Installer (MS Consulting Services) Content Details



#### NEW

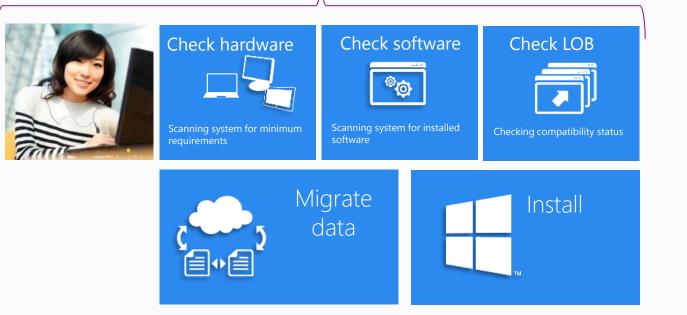
Self-Service Deployment Tool

Free for your deployment project

Must have infrastructure in place to use, which Jumpstart will enable

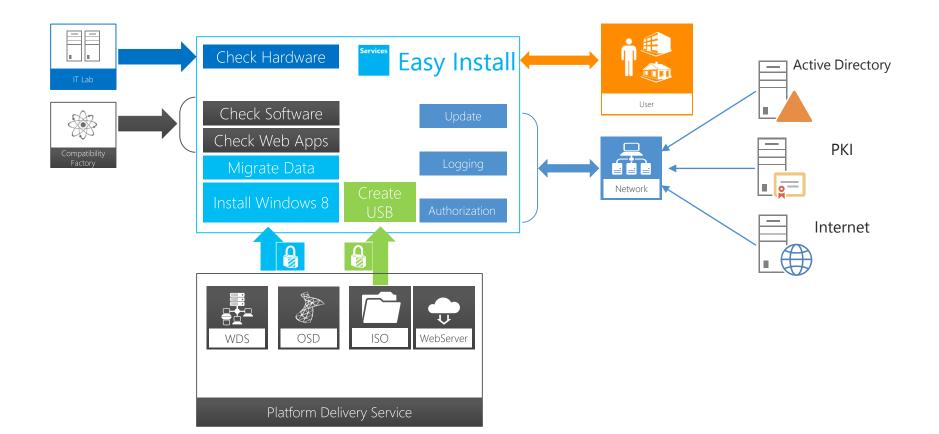
Easy Install provides a consistent experience for self service migration to Windows 7/8. The tool provides a simplified user interface (UI) leveraging deployment capability built on MDT 2013 and System Center 2012 R2 Configuration Manager.

90'000 Machines successfully migrated within Microsoft

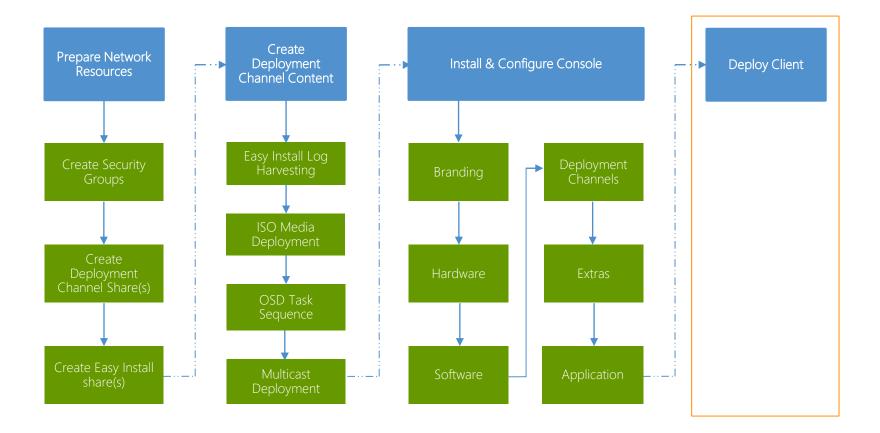


## Easy Install Architecture & Integration

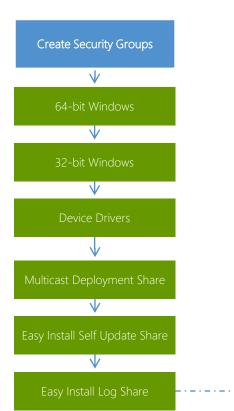


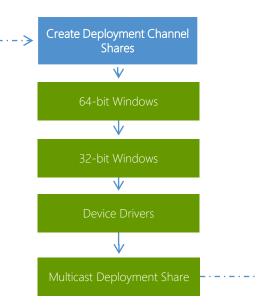


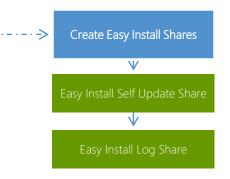
#### Implementation Process



#### Prepare Network Resources







## Windows 8.1 Deployment Strategy

Choosing the right Deployment Strategy for your Company
 Lite Touch Installation (LTI)
 Zero Touch Installation (ZTI)
 User-Driven Installation (UDI) based on SCCM 2012 R2
 "Clean Install" vs. OS UpGrade
 "Clean Install" vs. Migration of User Settings and Data

Application Compatibility Toolkit (ACT)
 Microsoft Assessment and Planning (MAP) Toolkit



## Windows 8.1 Deployment Tools

User State Migration Tool (USMT)
 Windows Assessment and Deployment Kit (ADK)
 Windows Assessment Toolkit
 Windows Performance Toolkit (WPT)

Deployment and Imaging Tools
 Windows Deployment Services (WDS)
 Microsoft Deployment Toolkit 2013 (MDT)
 System Center 2012 R2 Configuration Manager (SCCM)
 Internet Explorer Administrator Kit (IEAK)



## Windows 8.1 Deployment Tools

Windows Assessment and Deployment Kit (ADK)
 Replaces the Windows Automated Installation Kit (WAIK)

Includes the following Tools:

- Windows Assessment Toolkit
- □ Windows Performance Toolkit (WPT)
- □ Windows Pre-Installation Environment (Windows PE) 5.0
- □ Windows System Image Manager (Windows SIM)
- □ User State Migration Tool (USMT)
- Deployment Image Servicing and Management (DISM)
- □ Application Compatibility Toolkit (ACT)
- Volume Activation Management Tool



## Deployment and Imaging





## Windows Pre-Installation Environment [2] (WinPE)

Minimal operating system

Based on Windows 8.1

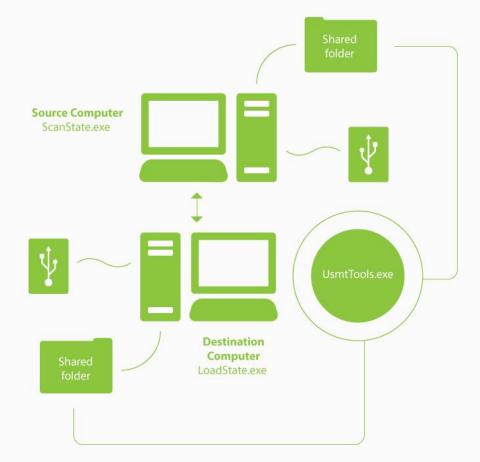


Assist in deployment

Used by MDT and Configuration Manager

## User State Migration Tool (USMT)

- Migrate user profiles and files
- Required by MDT and Configuration Manager
- Command-line tools:
  - ScanState.exe
  - LoadState.exe
  - UsmtUtils.exe



## Volume Activation Management Tool





## Windows Performance Toolkit (WPT)





## Windows Assessment Toolkit



- Assess existing Windows
  operating system
- Assess performance, reliability, and functionality
- Recommend improvements







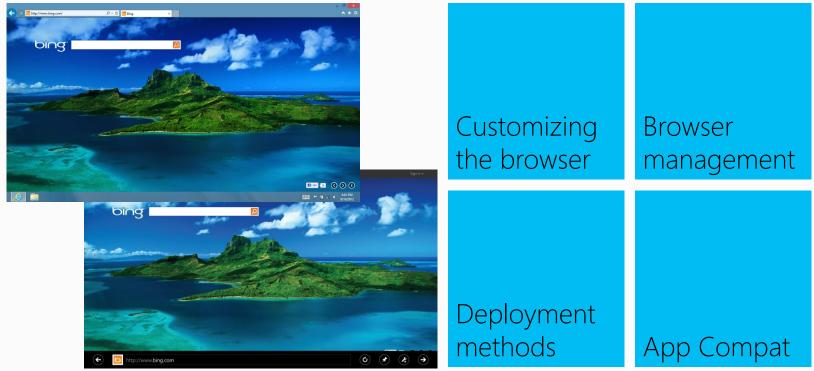
## Windows Assessment Services



- Test framework for running assessments
- Used in lab environments
- Measure performance, reliability, and functionality



### Internet Explorer 11 Administration



### **Common Browser Customizations**

| Title bar,<br>branding,<br>graphics | Connection<br>settings | Security<br>settings | Add-on<br>components | Preset web<br>pages and<br>links |
|-------------------------------------|------------------------|----------------------|----------------------|----------------------------------|
|-------------------------------------|------------------------|----------------------|----------------------|----------------------------------|

### Deployment scenarios

### Existing computers running Windows

- Use Windows Update or existing electronic software distribution systems like Configuration Manager, Windows Server Update Services, or Windows Intune
- Internet Explorer 11 supports command-line and IEAK options for silent installation

## As part of a Windows deployment

- Update Windows images to include Internet Explorer 11
- Add to the MDT deployment share
- Included in Windows 8.1

## Group Policy settings in Internet Explorer 11

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### Default browser

Notify users if Internet Explorer is not the default web browser

### ~1500

Group Policy settings total for support of all versions of Internet Explorer

### Adobe Flash

Turn off Flash in Internet Explorer and prevent applications from using Internet Explorer technology to instantiate Flash objects

New Group Policy settings for Internet Explorer 11

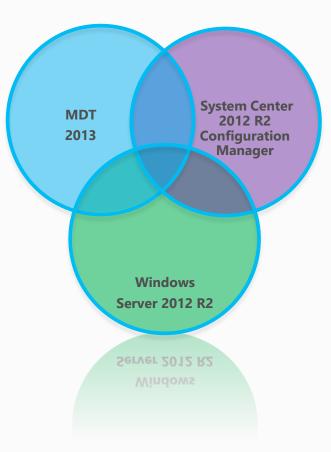
Group Policy Settings in Internet Explorer 11

## Compatibility view Group Policy

| Policy   | Description  |
|--|--|
| Include updated website<br>lists from Microsoft                                      | This policy controls the website compatibility lists that Microsoft provides. The updated website lists are available on Windows Update.   |
| <b>Turn off Compatibility</b><br><b>View</b> , Turn off Compatibility<br>View button | This policy setting controls the Compatibility View feature, which allows users to fix website display problems that they may encounter while browsing   |
| Turn on Internet<br>Explorer 7 Standards<br>mode                                     | This policy setting allows users to turn on Internet Explorer 7 Standards mode. Compatibility View determines how Internet Explorer identifies itself to a web server and determines whether content is rendered in Internet Explorer 7 Standards mode or the Standards mode available in the latest version of Internet Explorer. |
| Turn on Internet Explorer<br>Standards mode for local<br>intranet                    | This policy setting controls how Internet Explorer displays local intranet content. <i>Intranet content</i> is defined as any web page that belongs to the local intranet security zone.   |
| Use Policy List of Internet<br>Explorer 7 sites                                      | This policy setting allows you to add specific sites that must be viewed in Internet Explorer 7<br>Compatibility View.   |
| Use Policy List of Quirks<br>Mode sites  | Compatibility View determines how Internet Explorer identifies itself to a web server and determines whether content is rendered in Quirks Mode or the Standards mode available in the latest version of Internet Explorer.  |

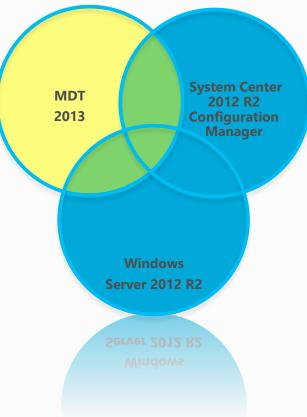
# Deployment Approach

- Configuration Manager SCCM 2012 R2
- Microsoft Deployment Toolkit MDT 2013
  - Windows ADK
  - Windows PE 5.0
  - USMT
- Windows Server 2012 R2:
  - Windows Deployment Services with multicast
  - Microsoft BranchCache improvements



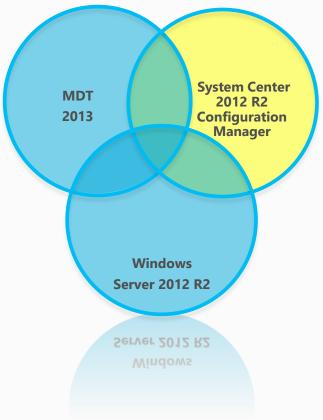
# Deployment Approach: LTI

- Lite Touch Installation (LTI)
- Only requires MDT 2013(free download)
- Contains tools and best practice guidance for deployment
- Used for image engineering and image deployment processes
- Includes the MDT database (MDT DB) for role, location, computer, and hardwarebased configurations
- Does <u>not</u> provide life cycle for desktop components after deployment



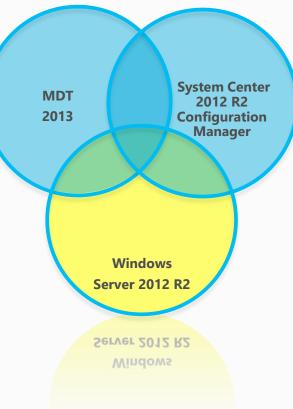
# Deployment approach: OSD

- Full bare metal Operating System Deployment (OSD) for Windows 8.1 and Windows Server 2012 R2.
- Requires Microsoft System Center 2012 R2 Configuration Manager infrastructure.
- Used for image deployment process
- Provides application, hardware, and security life cycle after deployment
- Provides full Application Lifecycle
  Management



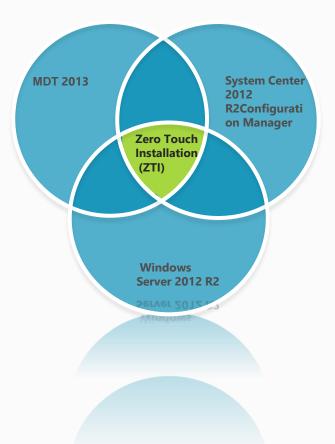
## Deployment approach: Windows Deployment Services

- Windows Deployment Services (PXE)
- Requires Windows Deployment Services Role installed on the server
- Can be used for image deployment
- Does not provide life cycle for desktop components after deployment
- Does not include MDT DB for role, location, computer, or hardware-based configurations



# Deployment approach: ZTI

- > Zero Touch Installation (ZTI)
- Combines the MDT DB, OSD, and Windows Deployment Services into a fully automated deployment solution
- Requires MDT 2013 integrated with a Configuration Manager infrastructure
- Can be used for image deployment
- Provides application, hardware, and security life cycle after deployment
- Includes the MDT DB for role, location, computer, and hardware-based configurations



#### Windows Deployment

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#### Modern Application Delivery & Installation

### Modern App Deployment Strategy

#### Two ways to install touch-centric Windows 8 Modern Apps

#### The Public Windows Store

Certified by Microsoft **Available 7x24h**, provided by the MS **Public Cloud Service Installed and updated by end users** ISV built business apps

#### IT Direct Distribution

Certified by the corporation Installed and updated via IT supplied processes Custom Line of Business (LoB) Apps

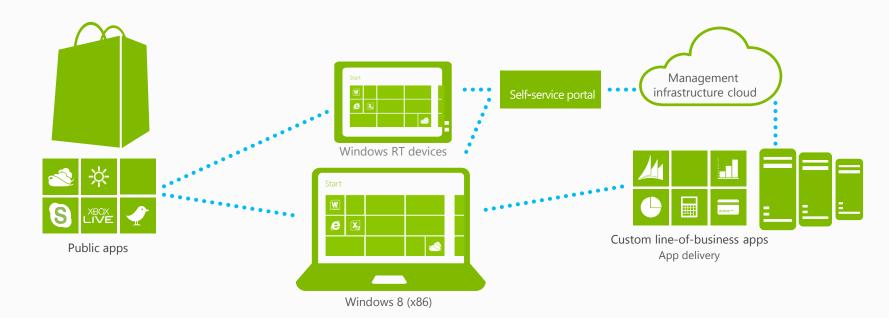
#### Enterprise Sideloading

The process of installing Windows 8 Apps directly to a device without going through the Windows Store

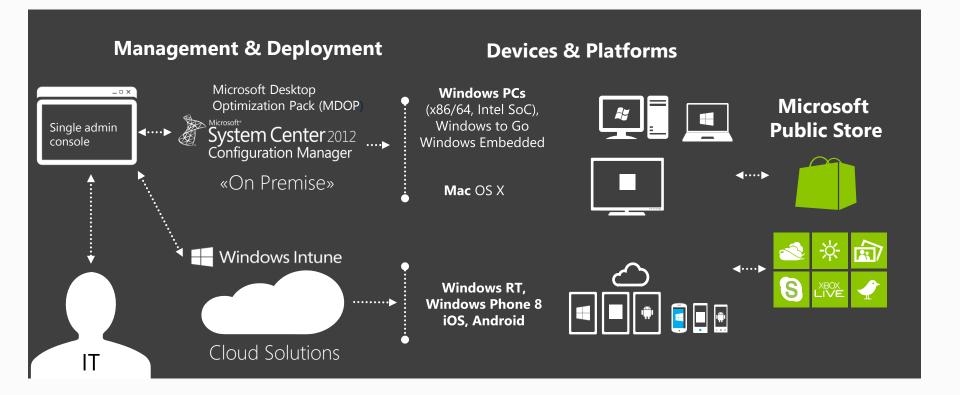
## Delivering Windows 8.1 Modern Apps

Download from Windows Store

Sideload from your infrastructure



# Simplifying Management Across Platforms



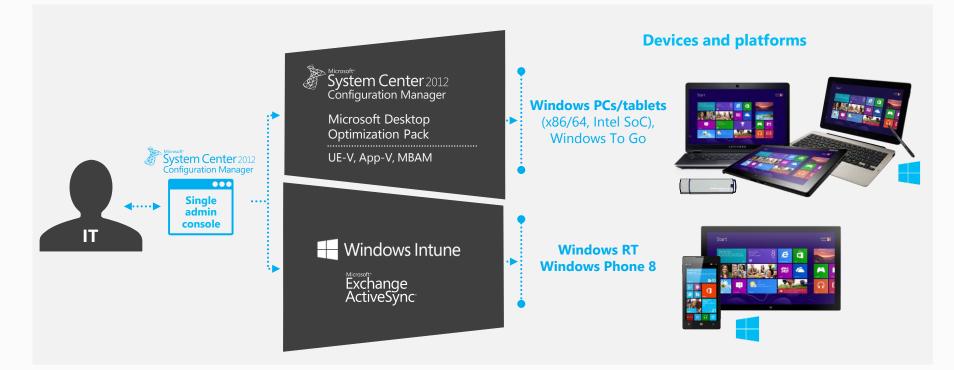


### Company Portal Announcement (October 18<sup>th</sup> 2013)

| Version   | Platforms   | Download Center URL   |
|---|---|---|
| Windows Intune Company Portal   | Windows 8, Windows RT,<br>Windows 8.1 and<br>Windows RT 8.1 | http://www.microsoft.com/en-<br>us/download/details.aspx?id=40794 |
| Windows Intune Company Portal<br>for Windows Phone 8                      | Windows Phone 8   | http://www.microsoft.com/en-<br>us/download/details.aspx?id=36060 |
| System Center Configuration<br>Manager (SCCM) Company Portal              | Windows 8 and Windows<br>8.1 (x86/x64 only)                 | http://www.microsoft.com/en-<br>us/download/details.aspx?id=40795 |
| Note: This is the first public release of the<br>"On-Prem" Company Portal |   |   |

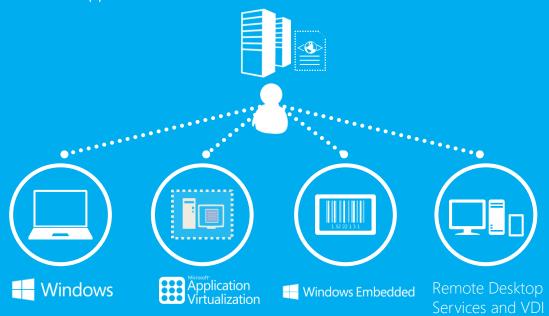


### Unified Device Management Windows, System Center, and Windows Intune



# Designing a User-Centric Delivery

- Deliver best user experience on each device
- Define an app once



#### Delivery evaluation criteria

- User
- Device type
- Network connection

#### User-device relationships

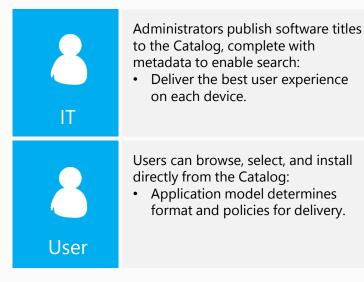
#### Primary devices:

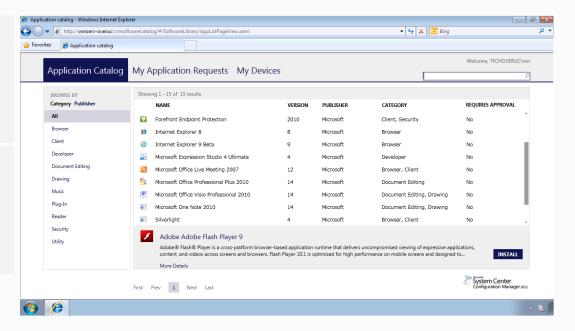
- MSI
- Microsoft Application Virtualization (App-V)
- Windows 8.1 apps
- Windows 8.1 apps in the Windows Store Nonprimary devices:
- VDI
- Remote Desktop

### User-Centric Application Delivery New Application Model in SCCM 2012 R2

|                            | General information      |  |
|----------------------------|--------------------------|--|
| Application                | Administrator properties | Keep your apps organized and managed                           |
| "package"                  | End-user metadata 🛛 🤤    | The "friendly" information for your users (appears in Catalog) |
|                            | Deployment type          |  |
| App-V                      | Detection method         | Is app installed?  |
| АррХ                       | Install command          | Command line and options                                       |
| ••• Windows Installer      | Requirement rules        | Can/cannot install app   |
| XAP, CAB, SIS,<br>IPA, APK | Dependencies             | Apps that must be present                                      |
|                            | Supersedence             | Application version control                                    |

### Application Catalog in SCCM 2012 R2 End-User Self-Service





### SCCM 2012 R2 Components

- User collections
- User deployments
- Intelligent deployment types
- Application Catalog
- Primary device settings and rules
- User policies

### SCCM User Collections

- Target specific users or groups of users
- Function same way as device collections
- Populated through Active Directory User and Group Discovery

| Assets and Compliance  | < User Co | ellections 107 items                          |                     |              |                         |         |
|------------------------|-----------|---|---------------------|--------------|-------------------------|---------|
| 4 👺 Overview           | Search    |   |                     |              | X Search Add Cri        | teria 🔻 |
| 💄 Users                | lcon      | Name  | Limiting Collection | Member Count | Members Visible on Site | Re      |
| nterices               | \$        | _Windows Intune Users                         | All Users           | 105          | 105                     | 0       |
| 💰 User Collections     | ٠         | All User Groups                               | All Users and User  | 70           | 70                      | 0       |
| Device Collections     | \$        | All Users                                     | All Users and User  | 214          | 214                     | 0       |
| 🅾 User State Migration | \$        | All Users and User Groups                     |                     | 284          | 284                     | 0       |
| Asset Intelligence     | \$        | BenSmith User Collection                      | All Users           | 1            | 1                       | 0       |
| 📜 Software Metering    | 1         | Intune Test Users                             | All Users           | 3            | 3                       | 0       |
| Compliance Settings    | \$        | IntuneDemoUser001 User Collection             | _Windows Intune U   | 1            | 1                       | 0       |
| Endpoint Protection    | \$        | IntuneDemoUser002 User Collection             | _Windows Intune U   | 1            | 1                       | 0       |
|                        | \$        | IntuneDemoUser003 User Collection             | _Windows Intune U   | 1            | 1                       | 0       |
|                        | d.        | IntuneDemoUser004 User Collection             | Windows Intune U    | 1            | 1                       | 0 *     |
|                        | ٠         |   |                     |              |                         | •       |
|                        | Intur     | ne Test Users                                 |                     |              |                         | ~       |
|                        |           |   |                     |              |                         |         |
|                        | Sumn      | nary  |                     |              |                         |         |
|                        | Nar       |   |                     |              |                         |         |
|                        |           | date Time: 3/14/2013 4:26 PM<br>mber Count: 3 |                     |              |                         |         |
|                        |           | mbers Visible on Site: 3                      |                     |              |                         |         |
|                        |           | erenced Collections: 0<br>nment:              |                     |              |                         |         |

## SCCM User Deployments

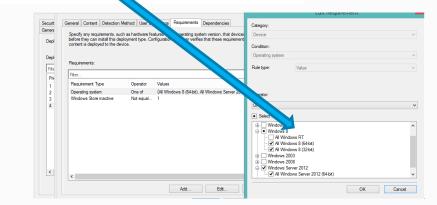
- Function similar to standard device deployments
- A *user deployment* is a deployment to a user collection; it is not a different type of deployment
- Must deploy to a user collection for user-centric delivery

| Search |                            | 🗙 🔎 Search 🧍          |                  |              |        |
|--------|----------------------------|-----------------------|------------------|--------------|--------|
| lcon   | Name                       |                       | Deployment Types | Deployments  | Status |
|        | Bubbles                    |                       | 1                | 1            | Active |
|        | Business Intelligence Demo |                       | 1                | 1            | Active |
|        | Company App                |                       | 1                | 1            | Active |
|        | Dynamics                   |                       | 2                | 1            | Active |
|        | Evernote                   |                       | 4                | 1            | Active |
|        | Expenses                   |                       | 1                | 1            | Active |
|        | Insurance Agent Demo       |                       | 1                | 1            | Active |
|        | Lync 2010                  |                       | 4                | 1            | Active |
|        | Marble Maze                |                       | 1                | 5            | Active |
|        | MyExpenses                 |                       | 1                | 1            | Active |
| 1      | 0                          |                       | 2                | +            | A      |
| Everi  | note                       |                       |                  |              |        |
| lcon   | Collection                 | Deployment Start Time | Purpose          | Compliance % |        |

# Mixed Deployment Types

- Each app has Multiple Deployments
- Example: App-V, .msi, .appx
- Deployments are Platform Specific
- Example: 32Bit (x86), 64Bit (x64)
- Enable users to get the same app, from the same portal, on any device

| Search | h         |  |                |                                   | ×             | Searce | h Add C  |
|--------|-----------|--|----------------|-----------------------------------|---------------|--------|----------|
| lcon   | Name      |  | Deployment     | Types Dep                         | loyments      | Status |          |
|        | Bubbles   |  | 1              | 1                                 |               | Active |          |
|        | Compan    | / App                                      | 1              | 5                                 |               | Active |          |
|        | Dynamic   | s CRM                                      | 1              | 2                                 |               | Active |          |
|        | Evernote  |  | 4              | 5                                 |               | Active |          |
|        | Expenses  |  | 1              | 4                                 |               | Active |          |
|        | Faceboo   | k (M34)                                    | 1              | 1                                 |               | Active |          |
|        | Flashligh | t-X  | 1              | 2                                 |               | Active |          |
|        | Marble N  | faze                                       | 1              | 5                                 |               | Active |          |
|        | Microsof  | t Lvnc 2010 for iPad                       | 1              | 2                                 |               | Active |          |
| Ever   | note      |  |                |                                   |               |        |          |
| lcon   | Priority  | Name                                       | Dependencies T | echnology                         |               |        | Supersec |
|        | 1         | Application Name - Windows Phone app pac   | No d           | deep link for Windows Phone Store |               |        | No       |
|        | 2         | Evernote for Android                       | No d           | deep link for Google Play         |               |        | No       |
|        | 3         | evernote - App Package for iOS from App St | No d           | deep link for Ap                  | ple App Store |        | No       |
|        | 4         | Evernote.Evernote - Windows app package 🎪  | No 1           | Windows Store I                   | ink           |        | No       |



### Application Catalog in SCCM 2012 R2

#### Web service and website point

#### Navigate

http://<Server>/CMApplicationCatalog

Automatically determines all applications available to the user

| Search   | 1  |               |  |  |   |  | $\times$   | Search   | Add Cri                                       | iteria     |
|--|--|---------------|--|--|---|--|--|--|---|------------|
| lcon   | Name   | Site Code     | Count of roles   | Туре   |   |  |  |  |   |            |
| <u>.</u>   | \\ConfigManager.conto  | CTO           | 9  | Primar   |   |  |  |  |   |            |
| R.   | \\manage.microsoft.com   | СТО           | 2  | Site sys   |   |  |  |  |   |            |
|  |  |               |  |  |   |  |  |  |   |            |
| con  | System Roles<br>Role Name  |               | Role Description   | 1  |   |  |  |  |   |            |
| con  | A  | service point | Role Description<br>A site system ro   |  | s as an Appl  | ication Catalo   | ig web ser   | vice point   |   |            |
| con<br>P   | Role Name  |               |  | ole that serve   |   |  | 2  |  |   |            |
| con<br>P   | Role Name<br>Application Catalog web s   |               | A site system ro   | ole that serve<br>ole that serve   | s as an Appl  | ication Catalo   | g website  | point  |   |            |
| con  | Role Name<br>Application Catalog web s<br>Application Catalog websi  |               | A site system ro<br>A site system ro   | ole that serve<br>ole that serve<br>viring a Conf  | s as an Appl<br>guration Ma   | ication Catalo<br>nager service  | g website<br>to be inst  | point<br>alled.  | o clients.                                    |            |
| con<br>D<br>D<br>D<br>D<br>D<br>D<br>D<br>D<br>D | Role Name<br>Application Catalog web s<br>Application Catalog websi<br>Component server  |               | A site system ro<br>A site system ro<br>Any server requ  | ole that serve<br>ole that serve<br>uiring a Confi<br>n Manager se   | s as an Appl<br>guration Ma<br>rver role tha  | ication Catalo<br>nager service<br>t stages packa  | iq website<br>to be inst<br>ages for d   | point<br>alled.<br>listribution to   |   | na         |
| con<br>D<br>D<br>D<br>D<br>D<br>D<br>D<br>D<br>D | Role Name<br>Application Catalog web s<br>Application Catalog websi<br>Component server<br>Distribution point  |               | A site system ro<br>A site system ro<br>Any server requ<br>A Configuration   | ole that serve<br>ole that serve<br>uiring a Confi<br>n Manager se<br>ole that replie                                  | s as an Appl<br>guration Ma<br>rver role tha<br>to Configu                                  | ication Catalo<br>nager service<br>t stages packa<br>iration Manag                                   | ig website<br>to be inst<br>ages for d<br>ger client r                         | point<br>alled.<br>istribution to<br>equests and                                 | accepts mar                                   |            |
| con  | Role Name<br>Application Catalog webs<br>Application Catalog webs<br>Component server<br>Distribution point<br>Management point                            |               | A site system ro<br>A site system ro<br>Any server requ<br>A Configuration<br>A site system ro                     | ole that serve<br>ole that serve<br>uiring a Confi<br>n Manager se<br>ole that replie<br>ole that runs                 | s as an Appl<br>guration Ma<br>rver role tha<br>es to Configu<br>Microsoft SC               | ication Catalo<br>nager service<br>t stages packa<br>iration Manag<br>QL Server and                  | to be inst<br>ages for d<br>ger client r<br>hosts the                          | point<br>alled.<br>listribution to<br>equests and<br>Configuratio                | accepts mar<br>on Manager s                   | sit        |
| Site :   | Role Name<br>Application Catalog web si<br>Application Catalog websi<br>Component server<br>Distribution point<br>Management point<br>Site database server |               | A site system ro<br>A site system ro<br>Any server requ<br>A Configuration<br>A site system ro<br>A site system ro | ole that serve<br>ole that serve<br>uiring a Conf<br>n Manager se<br>ole that repli-<br>ole that runs<br>ystem role th | s as an Appl<br>guration Ma<br>river role tha<br>to Configu<br>Microsoft SC<br>at hosts the | ication Catalo<br>nager service<br>t stages packa<br>iration Manag<br>QL Server and<br>Configuration | ng website<br>to be inst<br>ages for d<br>ger client r<br>hosts the<br>Manager | point<br>alled.<br>istribution to<br>equests and<br>Configuration<br>r component | accepts mar<br>on Manager s<br>ts and service | sit<br>es. |

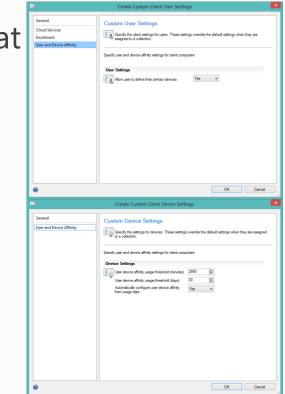
## Primary Device Settings and Rules

- Act as a deployment modifier:
  - Common scenario is MSI versus App-V
  - A condition, similar to an operating system type
- User can have multiple primary devices
- Can be manually assigned or automatically determined

| CLIENT1                               |                             | o mocare                           |                       |                 | Edit Primary Users   |
|---------------------------------------|-----------------------------|------------------------------------|-----------------------|-----------------|--|
| General Information                   |                             | Client Activity                    |                       | Related Objects | Specify the primary users of this device. Configuration Manager can be configured to deploy<br>content to a user based on their primary computer or device.<br>Type a search_string to search ALL users: |
|                                       |                             |                                    |                       | Primary User    | ben<br>Users matching ben':  |
| Name:<br>Client Type:                 | CLIENT1<br>Computer         | Policy Request:                    | 11/28/2012<br>2:27 PM | Primary User    | User Name Last Login Number of Logins<br>There are no items to show in this view.  |
| Client Check Result:<br>Remediation:  | No Results                  | Heartbeat DDR:                     | 11/28/2012<br>4:30 AM |                 |  |
| Active Directory Site:<br>Last Logon: | ConfigManSite<br>11/19/2012 | Hardware Scan:<br>Software Scan:   |                       |                 | Add Bemove   |
| Last Logon:                           | 10:10:44 AM                 | Management Point:                  | ConfigManager         |                 | Primary Users:<br>User Name Affinity Type  |
|                                       |                             | ······                             | .contoso.com          |                 | CONTOSO\BenSmith Administrator Defined   |
|                                       |                             | Status Message:<br>Days Since Last |                       |                 |  |
|                                       |                             | Communication:                     | 112                   |                 | OK Canoel  |

### User and Device Policies in SCCM 2012 R2

- Set of user- or device-specific polices that can be deployed to a collection of users
- Includes:
  - Ability to use cloud distribution
  - Rules for primary device assignment
  - Device enrollment
- Device policies can be used to control automatic assignment of primary user
- User policies permit user to self-assign





 How to Deploy Windows 8.1 and Windows Server 2012 R2?
 System Center Configuration Manager 2012 R2 Fully supports Operating System Deployment (OSD) and Software Distribution

- System Center Configuration Manager 2012 SP1 + CU3
  Supports Operating System Deployment and Software Distribution
  But you have to create your boot image using the ADK for Windows 8.1
- System Center Configuration Manager 2007 SP2 / SP3
  Supports SCCM Client Capabilities for Software Distribution and Inventory.
  There is no plan to add operating systems deployment (OSD) capabilities





 How to Deploy Windows 8.1 and Windows Server 2012 R2?
 The Microsoft Deployment Toolkit (MDT) 2013 can be used to create Master Images for Deployment

- Description of Update Rollup 3 for System Center 2012 (CU3) http://support.microsoft.com/kb/2756127/en-us

 Support Questions about Windows 8.1 and Windows Server 2012 R2 for System Center Configuration Manager
 http://blogs.technet.com/b/configmgrteam/archive/2013/09/16/support-questionsabout-win-8.1-and-winsvr-2012-r2-for-configmgr-and-endpoint-protection.aspx





### Things to think about (Windows 8.1 Projects)

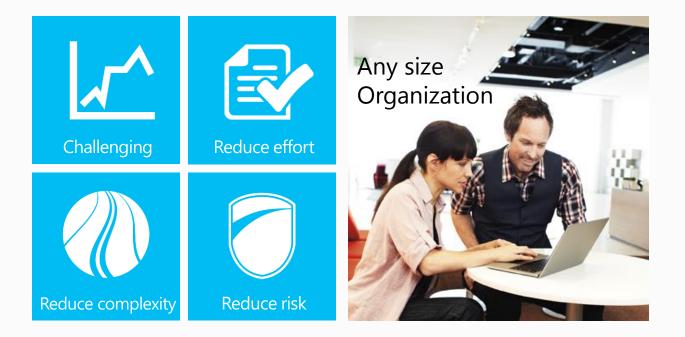
- KMS UpDate is needed for proper Activation of Windows 8.1 and Windows Server 2012 R2

http://support.microsoft.com/kb/2885698

 Deployment Guys: Many Resources, Scripts, Tips, Tricks and Tools http://blogs.technet.com/b/deploymentguys



### Deployment Summary





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