Zero-touch Windows 10 migration: Dream or reality?

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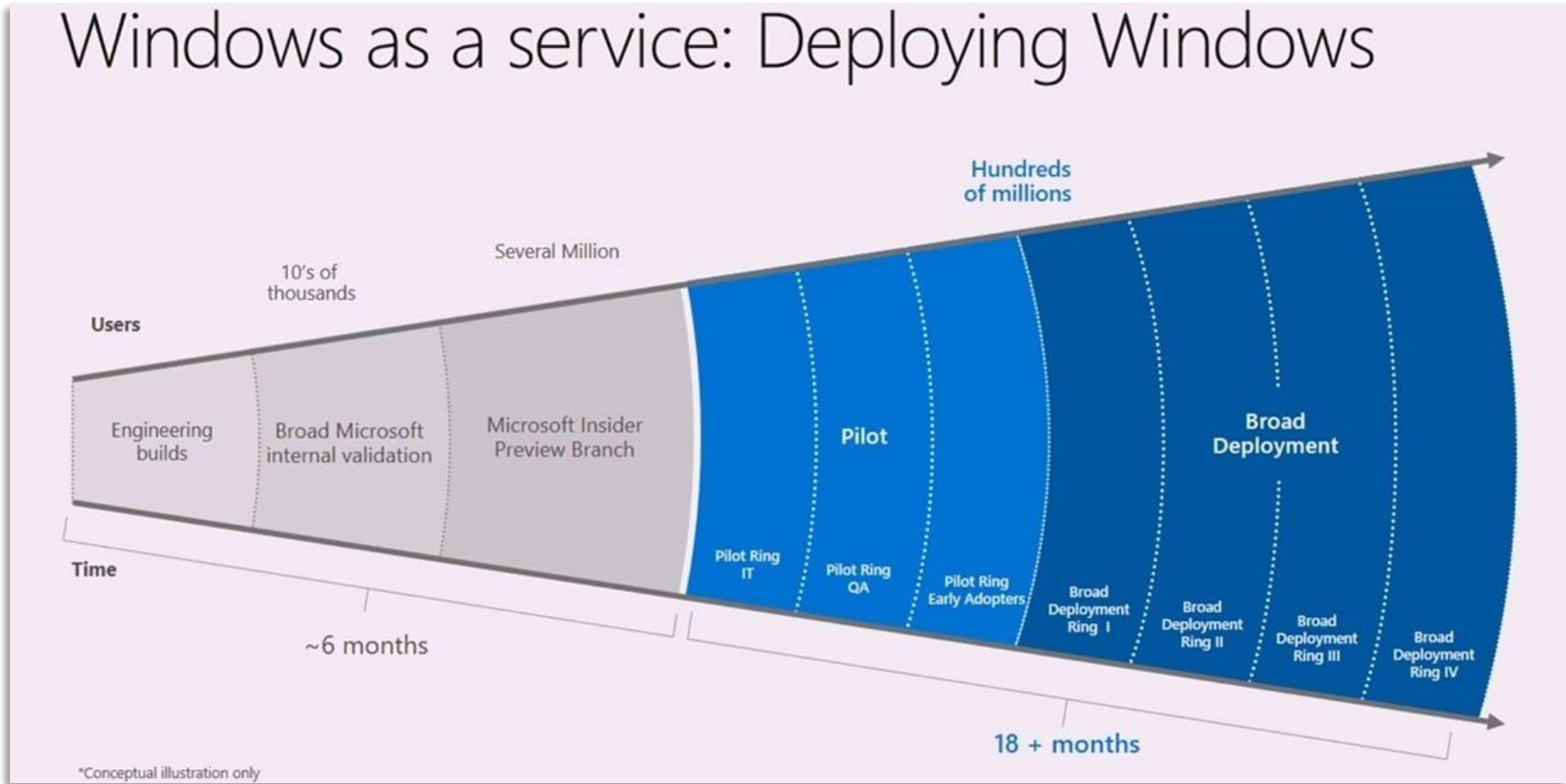CERN

Agenda

- Windows as a Service

- In-place upgrade basics concepts

- Windows 10 upgrade cooking recipe

- Dessert and delicacies: Real-life numbers

Windows as a service
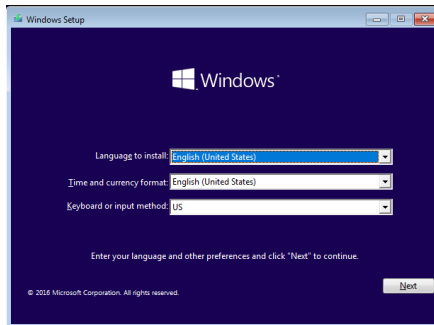

Windows as a service: Deploying Windows

What is in-place upgrade?

"The installation of an operating system or application on the computer without removing the older version first and without saving any data beyond normal precautions."

https://www.pcmag.com/encyclopedia/term/61018/in-place-upgrade

How to get Windows 10 installed

Pros and Cons

In-place upgrade	Full installation
Fast: from 45 mn to 1 hour	Prior issues are not migrated
Users find back previous software and settings	Clean install without unused elements
Rollback in case of failure	Needs complete profile configuration (including software, printers, user profile, email...)
Compatibility issue with specific software or hardware	
No upgrade path for X86 systems	

Memories

- In-place upgrade was supported on many previous Windows versions, including from Windows 98 SE to newer version !

- BUT… not recommended ?!
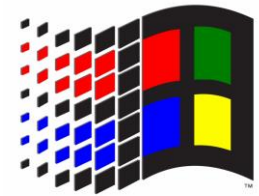
So what's new ?

- The install is clean

- Settings and apps are imported on the new Windows installation

- Automated (WORKING !!!) rollback in case of failure

Needed ingredients

- Deployment tool makes it easier but is not mandatory (OCS, SCCM…)

- CERN uses in-house tool , CMFdeveloped by Ivan Deloose

- Upgrade could be trigered by GPO and scheduled task

Cooking recipe

- First filter your targets !
  - Remove all critical machines that should not be touched !
  - Check hardware configuration to remove incompatible machines

- Communicate with users in advance
  - You will probably learn there's more « critical » machines than expected

- *YourWin10source\Setup.exe /auto upgrade /quiet /compat ignorewarning*
  - In system context !

Add some extra taste !

- Check disk space just before starting

- Check if laptops are plugged to power

- Add a bit of explanation to users when the setup starts (even if they don't read !)
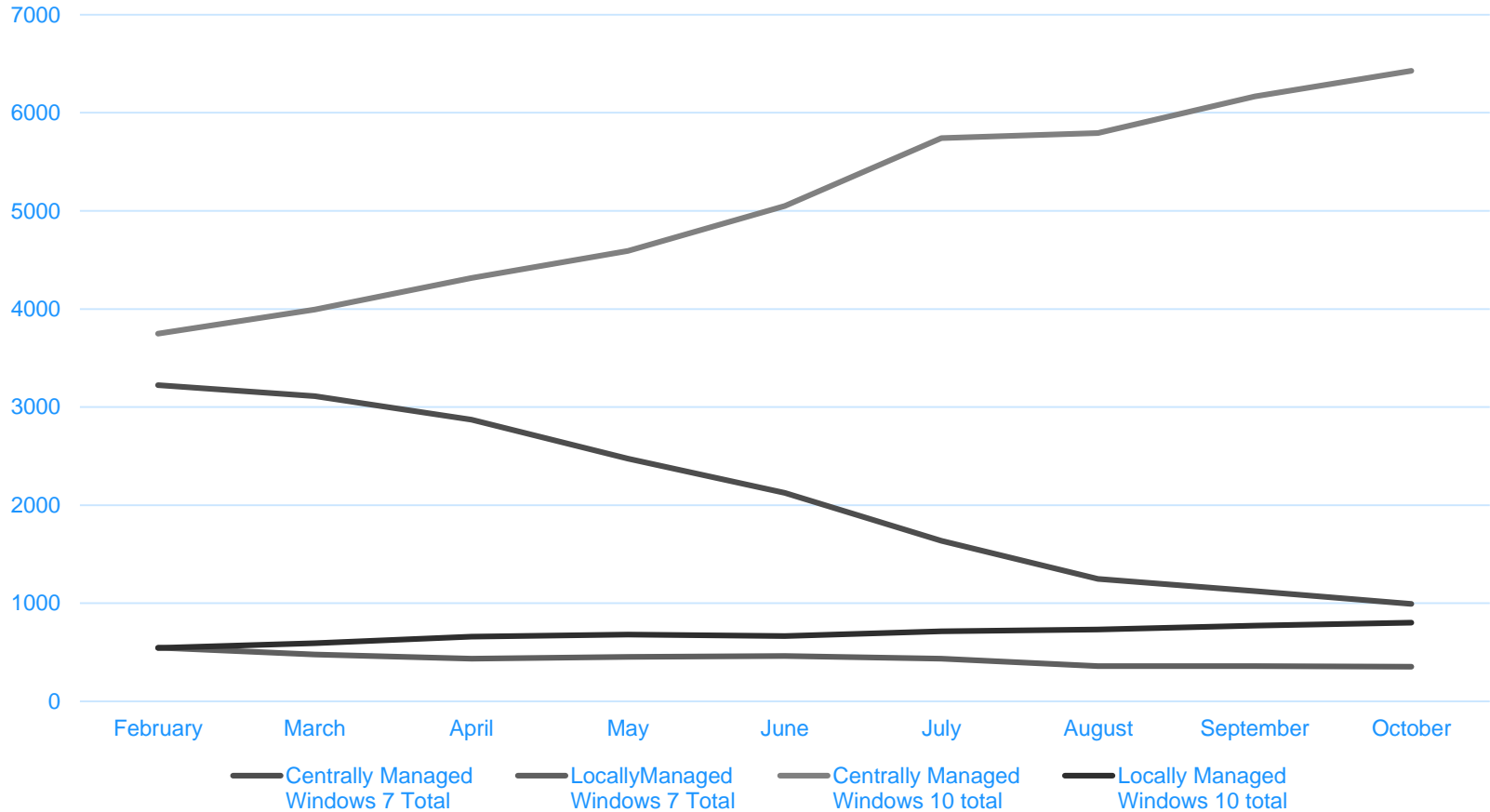
Dessert

- Microsoft claims everything runs smoothly…

- Reality is not too far: between 5% and 10% of upgrades depending on the targets might have issues

Delicacies: Migration status at CERN

Chart legend:
- Centrally Managed Windows 7 Total
- LocallyManaged Windows 7 Total
- Centrally Managed Windows 10 total
- Locally Managed Windows 10 total

Conclusion

- In-place upgrade is a valid way of upgrading quickly to Windows 10

- There will still be machines to be fully reinstalled

Links

- ## Communication material
  https://www.microsoft.com/en-us/itshowcase/preparing-your-organization-for-a-seamless-windows-10-deployment

- ## Technical advises
  https://docs.microsoft.com/en-us/microsoft-365/enterprise/windows-7-to-windows-10-upgrade-automated

- ## Upgrade paths
  https://docs.microsoft.com/en-us/windows/deployment/upgrade/windows-10-upgrade-paths

Questions