

365tube

An enterprise youtube-like
video library built
on cloud services

Christoph Mattheis – basic concept → acmattheis@gmx.net

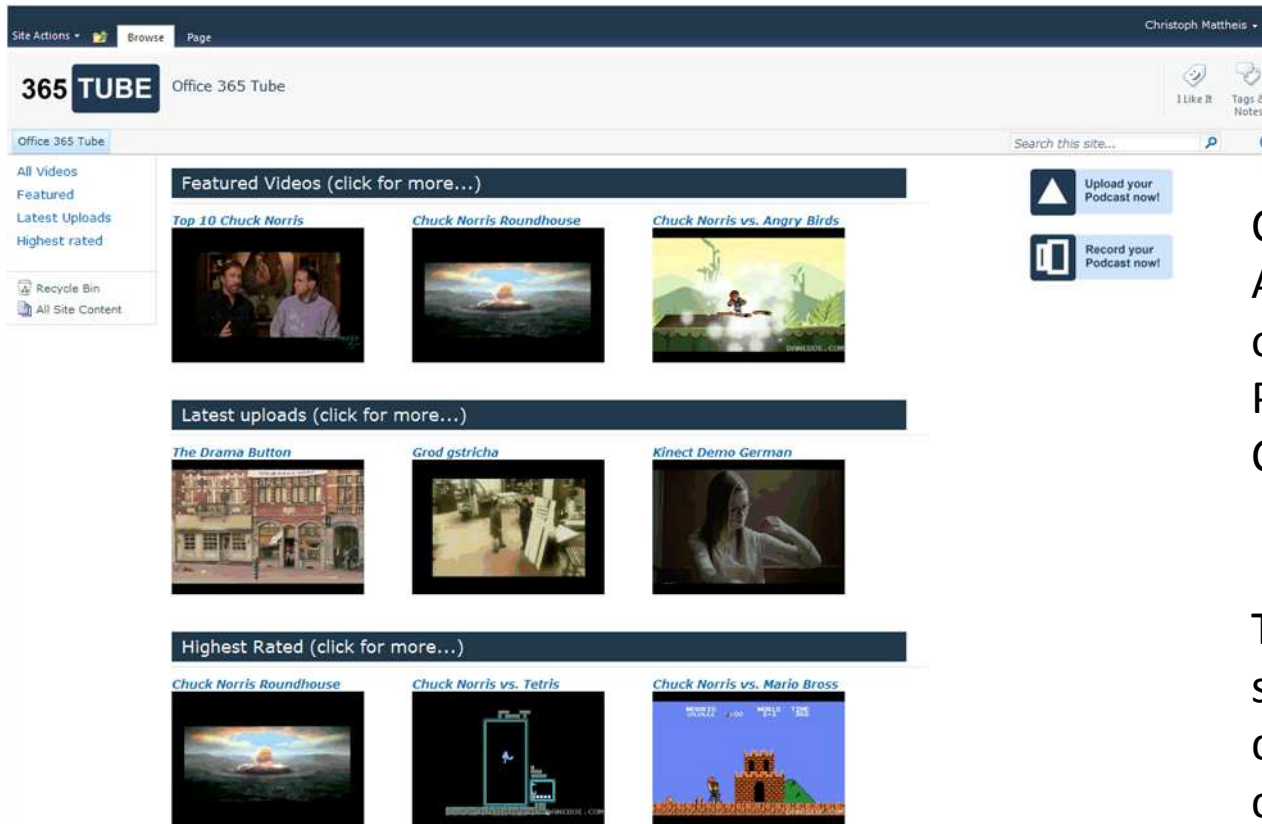
Patrick Lamber – Proof-of-Concept → patrick.lamber@lamber.eu

Roland Angerbauer, Christian Dreise, Franz Schmid, Olaf Schmitt - contributions

21 April 2012

Sharecamp Munich

Myth 1: High ROI business applications cannot be build on MS O365 – really ?



Check if we can build
An enterprise-2.0-version
of a youtube-like
Podcast library in the
Cloud....

There is a high ROI on
such an application
due learning and
communication aspects

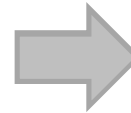
<add link to study here>

Overview Office 365

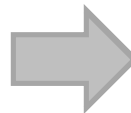
Watch: <http://sharepointcommunity.de/blogs/office365/archive/2011/04/01/office-365-und-sharepoint-online-ein-220-berblick.aspx>



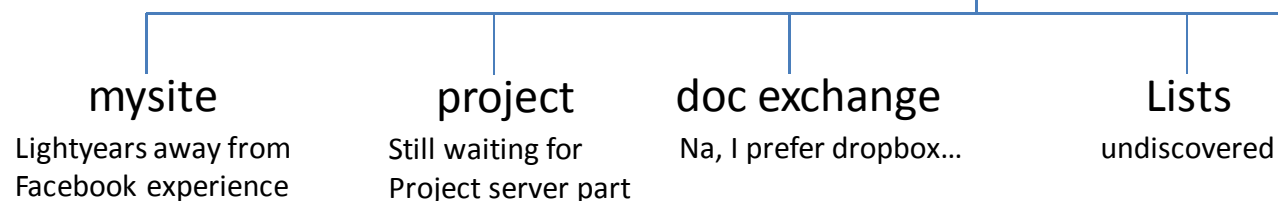
Exchange online is **great** !
25GB mailbox / User



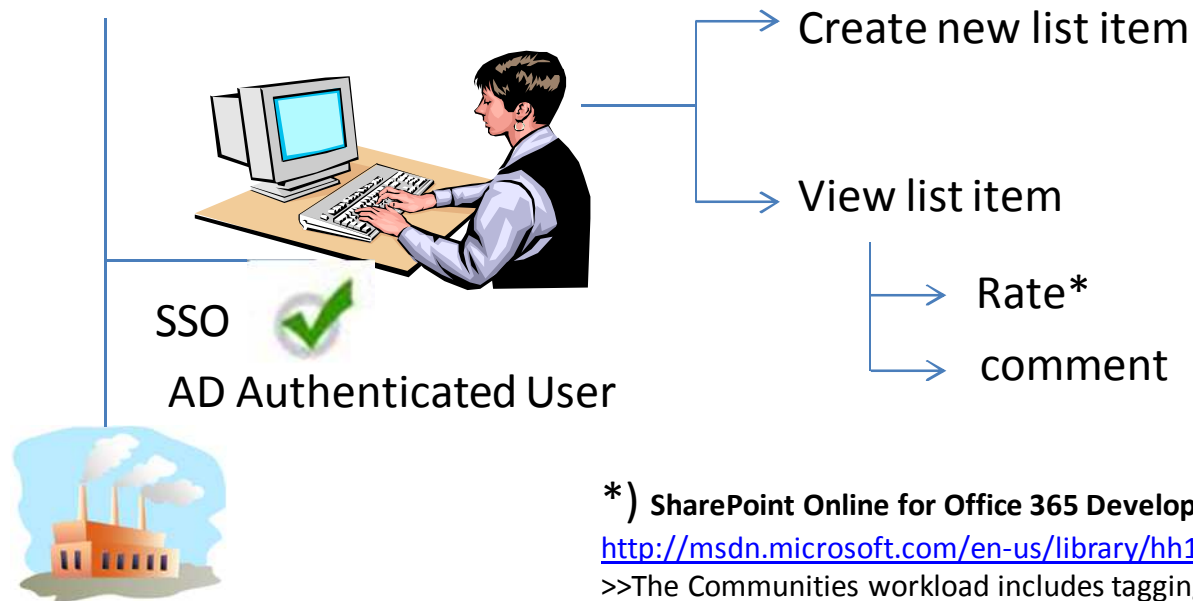
Lync online is **great** !
Instant chat / presence
And conferencing



Sharepoint Online is
...restricted



Myth 2: Sharepoint Online is good for nothing – really ?



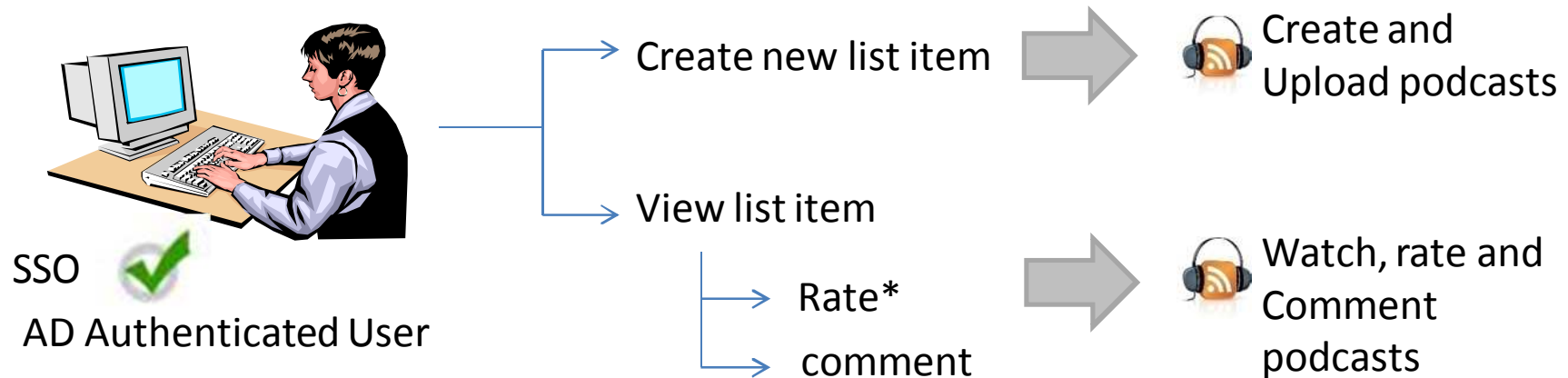
*) SharePoint Online for Office 365 Developer Guide

<http://msdn.microsoft.com/en-us/library/hh147180.aspx>

>>The Communities workload includes tagging, rating, and the tag cloud

Myth 3: 10GB storage is never sufficient for any use-case – really ?

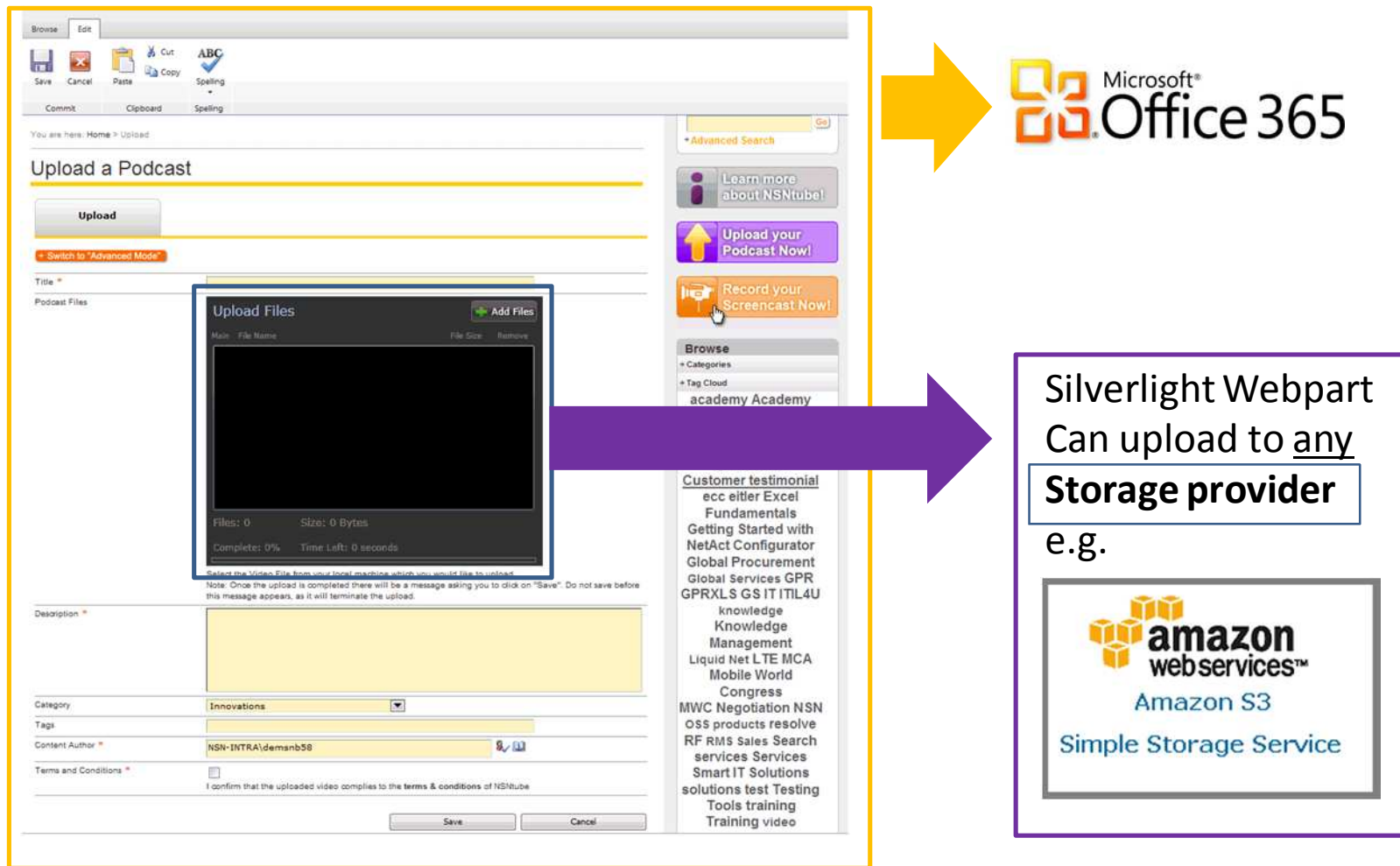
Use-Case: enterprise podcast library



Unfortunately there is only 10GB storage per tenant in O365
Plus 500MB per User
How many podcasts can be stored ?

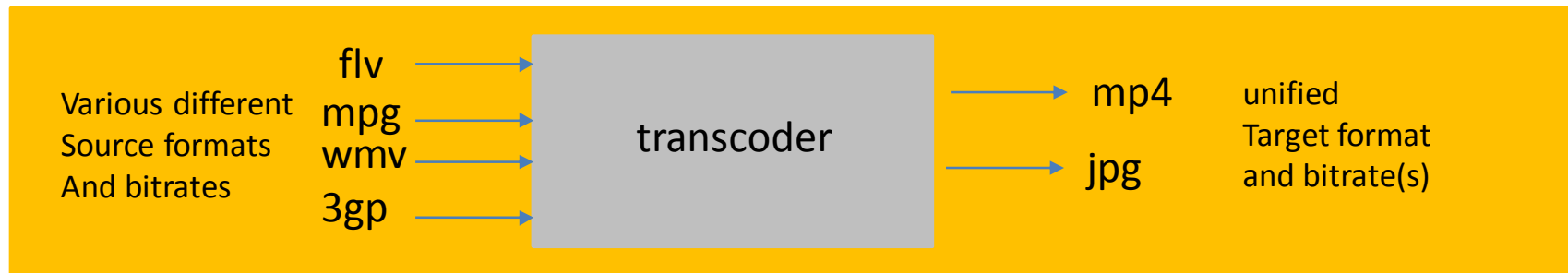
→ Solution: Get unlimited storage from the „cloud“ !

Myth 4: Microsoft only supports Microsoft Services – really?



The screenshot shows the NSNtube 'Upload a Podcast' page. A yellow box highlights the main upload area, and a purple box highlights the 'Upload Files' dialog. A yellow arrow points from the main page to the Microsoft Office 365 logo. A purple arrow points from the 'Upload Files' dialog to a text box that states: 'Silverlight Webpart Can upload to any Storage provider e.g. amazon web services™ Amazon S3 Simple Storage Service'. The 'Upload Files' dialog shows a progress bar at 0% and a 'Save' button.

Myth 5: With Microsoft you cannot use open-source – really ?



The YouTube-Challenge: podcasts / video come in **many different formats** –
And must be transcoded into **one common format**
→ There are commercial and open-source solutions , e.g.



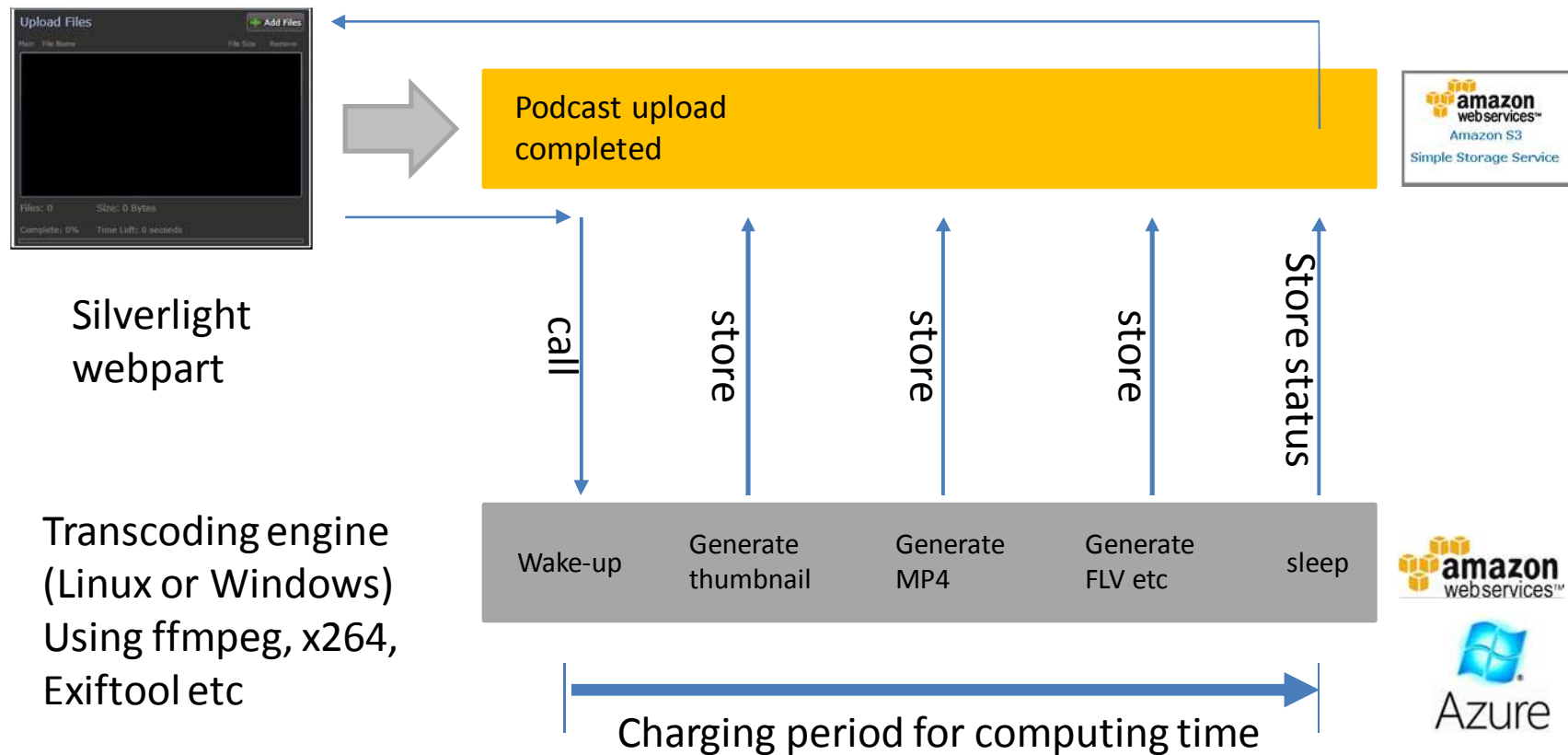
www.ffmpeg.org

videolan.org/developers/x264.html

See also - „Open Development at Microsoft“ –e.g. node.js:

<http://msdn.microsoft.com/de-de/hh793754?ocid=eml-n-de-loc--Openness-CTL-OD-Cloud>

Do-It-Yourself: transcoding engine



Or use an existing cloud-service


Transloadit My Account Demos Docs & Help Blog Logout

File uploading and encoding that you will love

Tired of handling file uploads, image resizing and video encoding? Avoid maintenance and hardware costs and concentrate on your app!

- Fully customizable uploading with progress bar
- Encode, convert or watermark video/audio and images
- Store uploads & encoding results in S3, Cloudfiles or SFTP
- Fast, flexible and shockingly easy to integrate
- Epic customer support

[Demos](#) [See Plans and Pricing](#)



Free for 0.1 GB

\$19 for 6.0 GB

Transloadit is trusted by hundreds of companies, both big and small:



Or check out new service offerings
<http://windowsazure.com/media>



Azure Media services: <http://weblogs.asp.net/scottgu/archive/2012/04/16/announcing-windows-azure-media-services.aspx>

At present (17-April 2012) not too much concrete details are published
About this upcoming service (pricelist, interfaces etc)

cloud security considerations

Enhanced Security




Content protection

Basic Security

https-delivery

Application Access

Content protection

	Microsoft Office 365	amazon web services™	Azure
Enhanced Security		AD-Federation for S3 Access *	DRM
Basic Security	 AD-Federation	 Cryptic public URLs For „lazy“ S3 Access	 AD-Federation

*) Amazon Federation: <http://aws.amazon.com/code/1288653099190193>

First impression

https://office365pilot.sharepoint.com/Sites/a/default.aspx

W - Wikipedia (de)

Vergößern Meistbesuchte Seiten Erste Schritte Aktuelle Nachrichten Fernsehprogramm von ... E-Mail schreiben

Site Actions Browse Page Christoph Mattheis

365 TUBE Office 365 Tube

Office 365 Tube Search this site...

All Videos
Action
Chuck Norris
General
Misc
Movies

Featured
Latest Uploads
Highest rated

Recycle Bin
All Site Content

Featured Videos (click for more...)

chuck norris - roundhouse
Chuck Norris vs. Angry Birds
Chuck Norris vs. Mario Bross

Latest uploads (click for more...)

Chuck Norris Karate
Kinect Demo German
Chuck Norris's One Wish

Highest Rated (click for more...)

Chuck Norris vs. Angry Birds
Chuck Norris vs. Pac Man
10 Facts about Chuck Norris

Upload your Podcast now!

Record your Podcast now!

Instructions or Tag Cloud here

upload

Screen recording

List view (sharepoint online)

categories

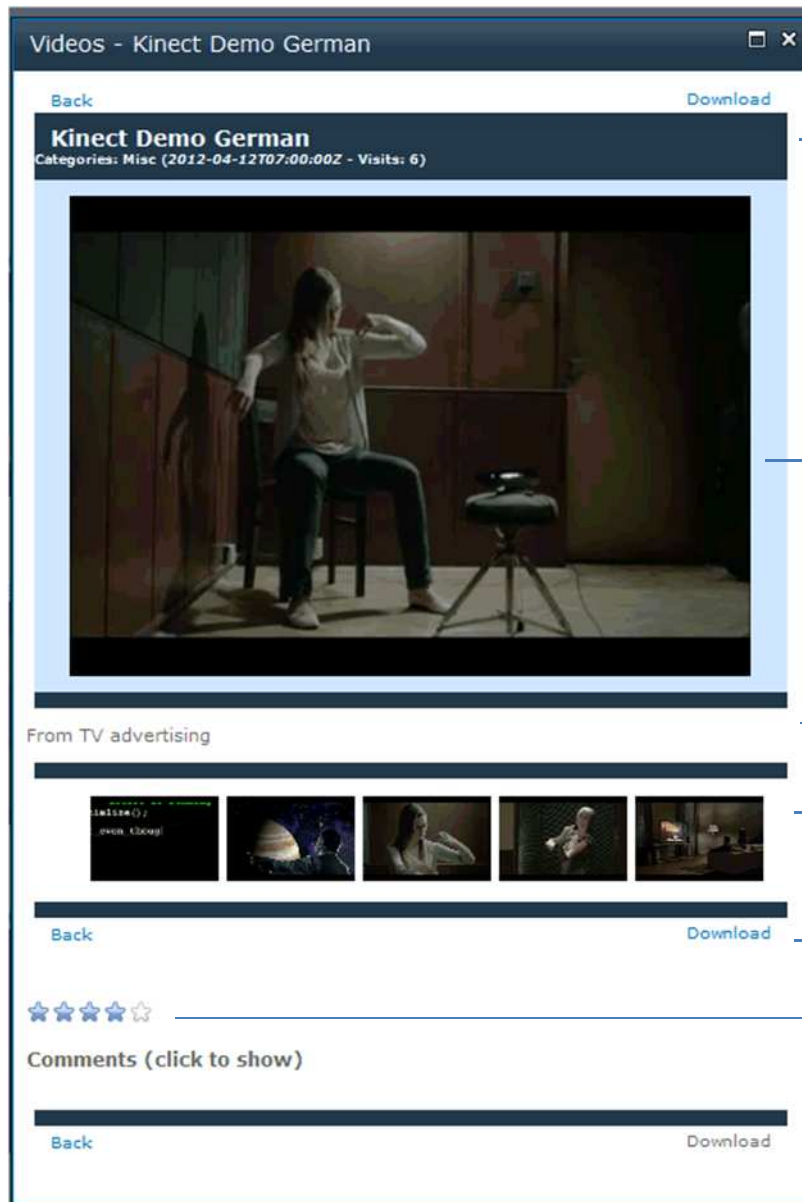
views

rating

AD Authenticated User

Thumb1	Title	Author	Published	Categories	Rating (0-5)
	chuck norris - roundhouse kick OMG	Christoph Mattheis	4/12/2012	Misc; Chuck Norris	☆☆☆☆☆
	Chuck Norris vs. Tetris	Christoph Mattheis	4/12/2012	Chuck Norris	☆☆☆☆☆
	Begehrter Kleiderschrank	Christoph Mattheis	4/5/2012	Misc	☆☆☆☆☆
	Chuck Norris vs. Angry Birds	Christoph Mattheis	4/2/2012	Chuck Norris; Action	☆☆☆☆☆
	Chuck Norris vs. Mario Bros	Christoph Mattheis	4/2/2012	Misc; Chuck Norris	☆☆☆☆☆
	Chuck Norris Super Kick	Christoph Mattheis	4/2/2012	General; Movies	☆☆☆☆☆

View podcast



Metadata

View-Counter

Playback-Area*

- Timeline
- Pause/play
- Full-screen option
- Volume control

Description

Thumbnails

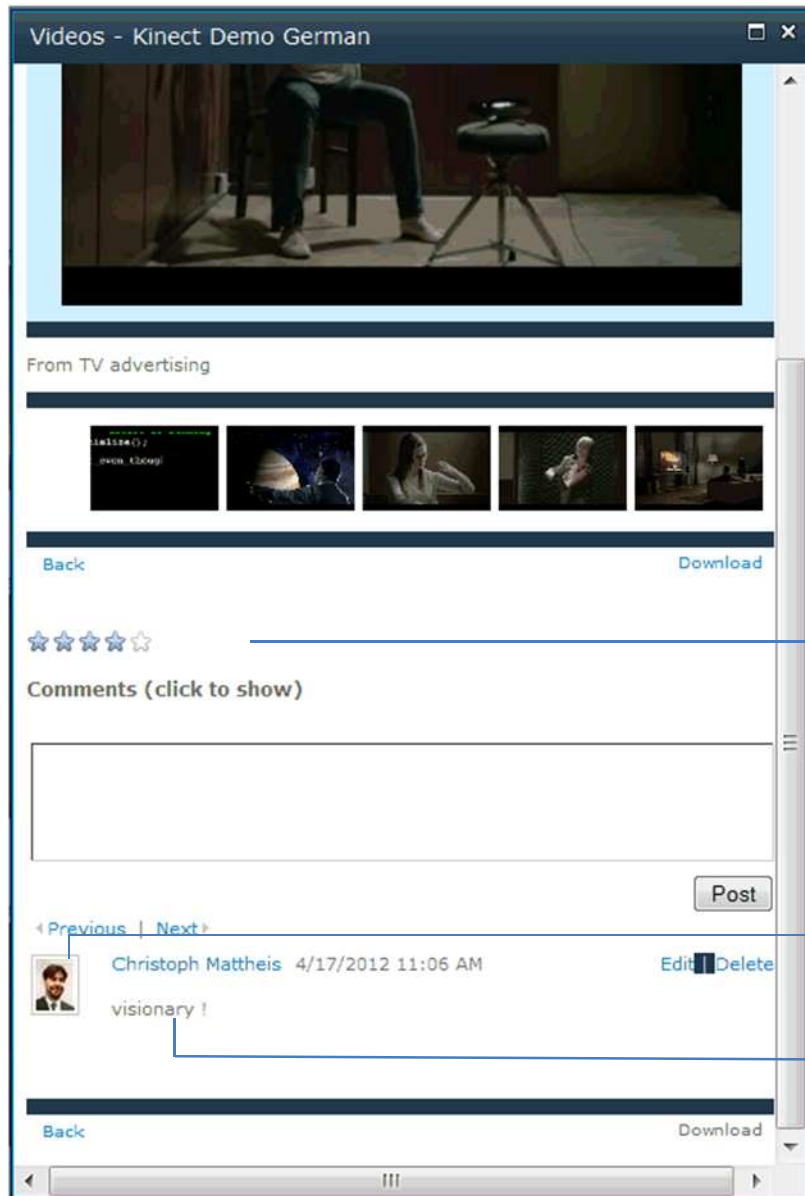
download

rating

*) using flowplayer.org

Rating and commenting

Using sharepoint Out-of-the-Box Standard Features



rating

User
Thumbnails

comments

Windows PC

Ipad

Iphone

LIVE DEMO HERE











Some Feature highlights

	WinPC	ipad	iphone	Win phone	android	Linux	xbox	Mac	...
Access / login				?	?				
View podcasts				?	?				
Upload				?	?				
Screen recording*									
Multi-Resolution									

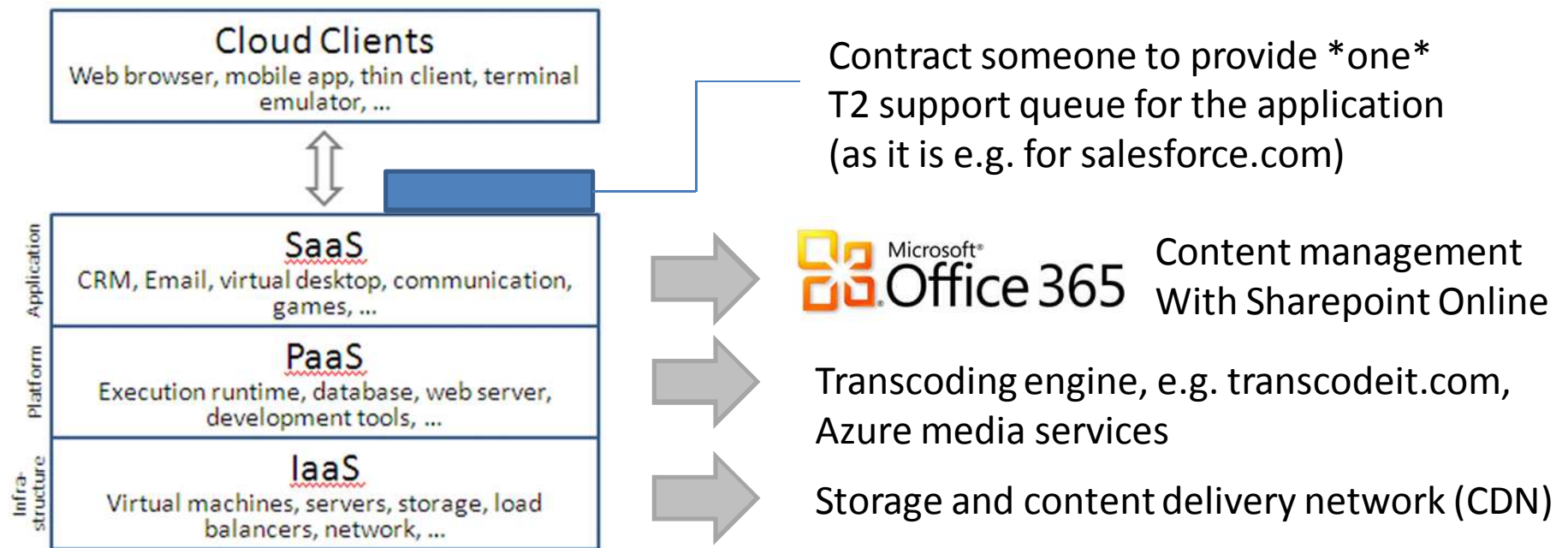
*) requires JVM runtime – not avail on ipad / iphone / ipod touch

Myth 6: All cloud presentations have to start with a definition what „cloud“ is – really ?

Oh, I'm terribly sorry – I missed that part ... however, let's do a quick check now for the „enterprise 2.0 podcast library“:

Are there distinct costs (per user, per GB) ?	yes	
Minimal user count	1	
Maximal user count	500k*	
Can 10.000 users watch videos at the same time?	yes	
Can I quickly ramp up (users, storage)?	yes	
Can I also quickly ramp- <u>down</u> - without cost latency?	yes	
No costs for unused capacity ?	yes	
Access from everywhere / any device ?	yes	
Maximum storage capacity?	unlimited	
Best-of-breed selection of multiple cloud providers possible	yes	

High-Level Architecture View



Source: wikipedia

Myth 7: there is a trick – only geeks can build this ! – really ?

No, find all required components and instructions on

<http://365tube.codeplex.com/>

Build and check it yourself – and modify to your needs

Ingredients
Blueprint / instructions → codeplex
MS Office 365 subscription (ideally Plan E1 with AD federation)*
Code for sandbox solution → codeplex
Cloud storage provider (CSP) → e.g. Amazon S3*
Cloud computing provider (CCP) → e.g. Azure*, Amazon*
Additional security measures if CSP and CCP is NOT Microsoft
Transcoding machine config / script → e.g. transloadit.com*

*) free test plan available

Thanks for your attention – and next time...

...let's see if we can build a facebook-like mysite experience in sharepoint online*



Podcastkit on O365 wireframes

Chris Mattheis

v0.1

25-March 2012

Challenges

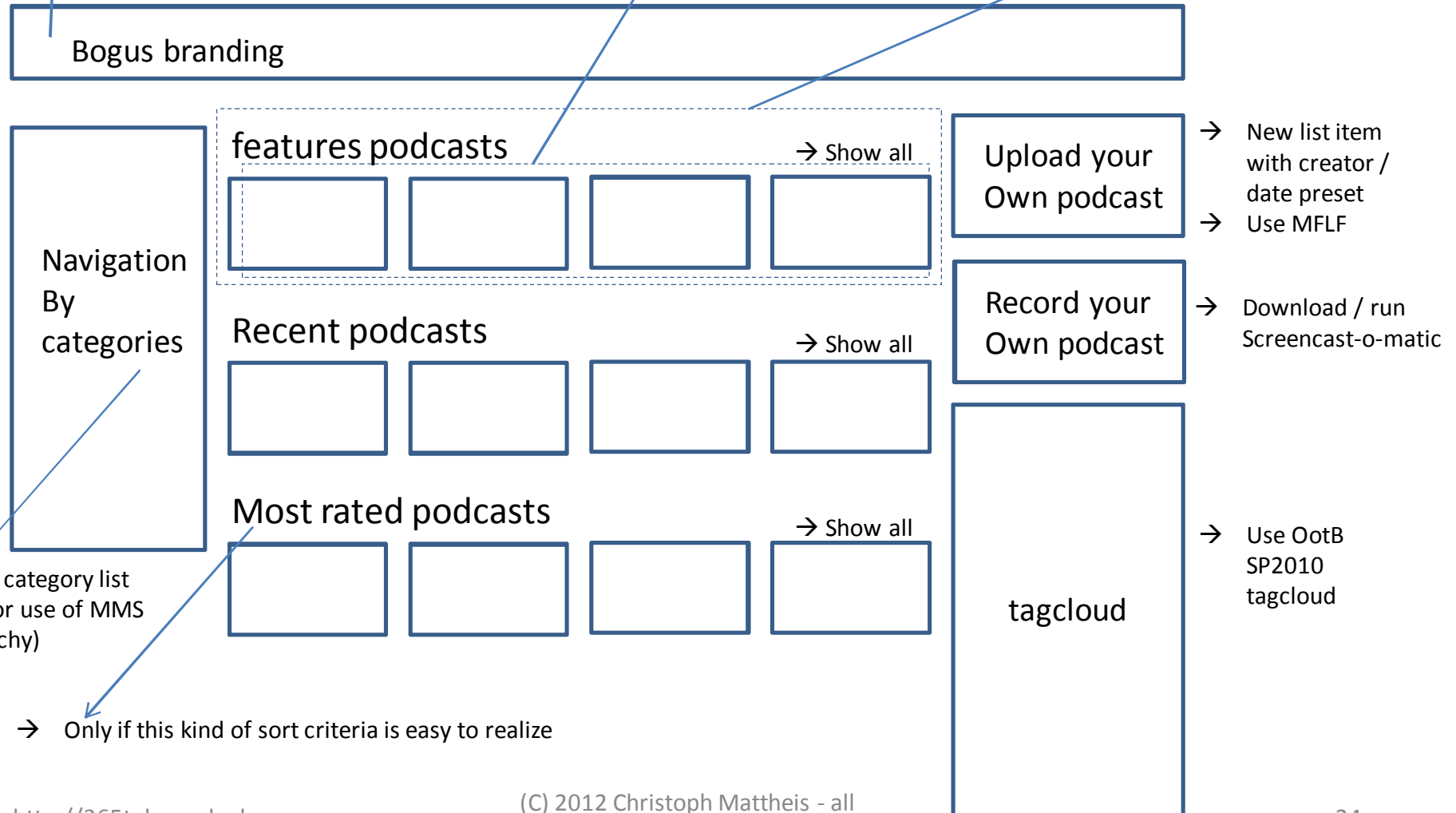
- Podcastkit homepage
- Upload new podcast page
- Edit podcast page / delete page
- View podcast with rating / commenting
- List all podcasts
- Special challenges:
 - Thumbnails
 - Ipad support
 - Count viewed podcasts

Podcastkit homepage

Masterpage branding
WSP solution according
O365 concept

Thumbnail-Presentation maybe re-use parts
of <http://www.twospy.com/galleriffic/> ?

CQWP – or is there any
Better option (e.g. search)?



Upload new podcast page

Bogus branding

Navigation
By
categories

Upload your podcast

Title:

textline

Creator:

personID

← LFMF preset with current user

Published:

TT/MM/YYYY

← LFMF preset with current date

Description:

Multiline RTF

Category:

Folksonomy enables (like in mysite)

Dropdown (flat, list) or MMS dialog here

← LFMF preset with „misc“

Uploader jQuery plugin from

www.transloadit.com

Need to preset variables like

SiteColl-ID, List-ID, Item-ID for path *

→ Manage upload, transcode, thumbnail
generation and storage in S3

Feature-boost

number

← LFMF field hidden, only visible
to SC-members → simple
workflow needed for regular
user to request „featured“
maybe item-level security req

Viewcount

Number , preset 0 on new

<http://transloadit.com/docs/configuring-the-jquery-plugin>

<http://transloadit.com/docs/s3-store>

http://support.transloadit.com/discussions/problems/441-unique_prefix-contains-in-s3-url

Edit podcast page / delete page

Bogus branding

Navigation
By
categories

Edit your podcast

Delete ← „delete“ option here

Title:

Creator:

Published:

Description:

Tags:

Category:

Allow choose from different thumbnails
Here – import into SP (maybe)

Feature-boost

<http://365tube.codeplex.com>

Viewcount

(C) 2012 Christoph Mattheis - all
brand/trademark belong to their owners

← LFMF field hidden, only visible
to SC-members → simple
workflow needed for regular
user to request „featured“ 26
maybe item-level security req

List all podcasts from „show all“ in featured, recent, most rated podcasts

Bogus branding

Navigation
By
categories

Title	creator	published	category	rating	featured	viewcount

View podcast page

Bogus branding

Navigation
By
categories

View podcast

Title: textline
Creator: personID
Published: TT/MM/YYYY
Description: Multiline RTF , readonly
Tags: Folksonomy , readonly
Category: Dropdown or MMS , readonly

Flowplayer plugin (see NSNtube)
Need to preset variables like
SiteColl-ID, List-ID, Item-ID for path * to
Play file from S3 in FLV or MP4 (iOS fallback)

Rating



← OotB rating here

Viewcount: Number , readonly on view

Comment: Multiline (using OotB tags/notes)

Commenting used in „view podcast“

Find attached the trick how to use CommentWebPart everywhere in SP2010:



Insert the following lines into your page layout:

```
<table>
  <tr>
    <td>
      <SharePointPortalControls:SocialCommentWebPart id="SocialCommentWebPart1" runat="Server" />
    </td>
  </tr>
</table>
```


And register Namespace:

```
<%@ Register Tagprefix="PublishingNavigation" Namespace="Microsoft.SharePoint.Publishing.Navigation" Assembly="Microsoft.SharePoint" %>
<%@ Register Tagprefix="SharePointPortalControls" Namespace="Microsoft.SharePoint.Portal.WebControls"
Assembly="Microsoft.SharePoint.Portal, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce111e9429c" %>
```

Transcodeit - template

```
{
  "steps":{
    "encode":{
      "use": ":original",
      "robot": "/video/encode",
      "preset": "iphone"
      "width": 320,
      "height": 240
    },
    "thumbs":{
      "use": ":original",
      "robot": "/video/thumbs",
      "count": 4
    }
  },
  "export_t":{
    "use": "thumbs",
    "robot": "/s3/store",
    "bucket": "your-bucket-thumbs",
    "key": "your-key",
    "secret": "your-secret"
  },
  "export_v":{
    "use": "encode",
    "robot": "/s3/store",
    "bucket": "your-bucket-videos",
    "key": "your-key",
    "secret": "your-secret"
  }
}
}
```

Runs in parallel due to
„use“ : „:original“



Colon is names is a challenge in
Javascript / jquery

S3 / cloudfront / Ipad support

Flowplayer has cloudfront support

<http://flowplayer.github.com/plugins/streaming/cloudfront/index.html>

Flowplayer has also ipad (iOS) support – fallback to MP4

<http://flowplayer.org/plugins/javascript/ipad.html>

Simply transcodeit has to create / store also iOS-comp MP4 version

Count viewed podcasts

To count the number of podcasts viewed has always been a challenging part

Idea:

Enduser browser calls javascript part → webservice to increment „view counter“

Or simple solution count number of shown popups