



IBM Connections



IBM Lotus Connections – Cloud & OnPremise

Customizer – Overview from a developer's perspective

Introductions



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Things to look at:

- Why do we have / use Customizer?
- How do we use Customizer?
- Where can we use Customizer?
- What can we do with Customizer?
- Additional information

Why use it:

- Frequent customer requests to modify the UI / DOM / page behaviour
 - often time consuming to turn them around
- Injection of CSS makes it simple to customise the page to your own preferences.
- Injection of JavaScript allows for simple but effective control over a given page / application
- Much more accessible development
- Open source (often)

What we can do:

Direct CSS Injection -

```
<link href="/files/customizer/css/global.css?repoName=periscope" type="text/css" rel="stylesheet">  
<link href="/files/customizer/css/communities.css?repoName=periscope" type="text/css" rel="stylesheet">
```






Here we inject IBM's "Periscope" extension – a visual update to the Hikari theme. The response is edited at runtime and the `<link>` tags are inserted into the `<head>` tag.

This is done to ensure that the CSS is loaded before the page is rendered.

Consequently if the CSS is well formatted you can alter the style of the page drastically. For "Periscope" – it is a minor visual update.

The result is this –

From this

 ICTS-Dyen Accueil Courrier Agenda Personnes **Communautés** Fichiers Box Réunions Organiser une réunion Activités Buzzy Kudos Boards Autres **Intranets** Admin    

Communautés

[Je suis propriétaire](#)

Je suis membre


Communautés que je suis

Je suis invité

Communautés ICTS-Dyen

Corbeille


Communautés Favorites

Etiquettes 

Rechercher une étiquette


demo icec kem-one **virbac**




Nuage | Liste

Démarrer une communauté 

1 - 10 sur 22



Page : 1 2 3

Trier par : Date  Popularité | Nom





**Cerfacs1**  

1 personne | Mis à jour par [David Dyen-icts](#) | 22 oct. 2018




Description

**Virbac-démo** 




8 personnes | Mis à jour par [David Dyen-icts](#) | 18 oct. 2018 | Etiquettes : [demo](#), [virbac](#)

**Virbac Commerce**   





8 personnes | Contenu partagé mis à jour par [David Dyen-icts](#) | 15 oct. 2018 | Etiquettes : [virbac](#)

**Virbac - NavCommerce**  





7 personnes | Mis à jour par [David Dyen-icts](#) | 28 sept. 2018

**Virbac - Nav**  





8 personnes | Mis à jour par [David Dyen-icts](#) | 28 sept. 2018

**Virbac groupe**   



8 personnes | Mis à jour par [David Dyen-icts](#) | 28 sept. 2018 | Etiquettes : [virbac](#)


**Kem One - démo**   

8 personnes | Mis à jour par [David Dyen-icts](#) | 21 sept. 2018 | Etiquettes : [kem-one](#)

**Virbac RH**   

6 personnes | Mis à jour par [David Dyen-icts](#) | 20 sept. 2018 | Etiquettes : [virbac](#)


Recommandations 

Il n'y a pas de recommandations actuelles pour vous.

[Précédent](#) [Suivant](#)

javascript:void(0)

To this

 ICTS-Dyen Accueil Courrier Agenda Personnes Communautés Fichiers Box Réunions Organiser une réunion Activités Buzzy Kudos Boards Autres Intranets Admin

Communautés

Je suis propriétaire

Je suis membre

Communautés que je suis

Je suis invité

Communautés ICTS-Dyen

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Etiquettes

Rechercher une étiquette

demo icac kem-one

virbac


Nuage | Liste

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Cerfacs1

Restreint


1 personne | Mis à jour par David Dyen-icts | 22 oct. 2018

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Virbac-démo

8 personnes | Mis à jour par David Dyen-icts | 18 oct. 2018 | Etiquettes : demo, virbac




Virbac Commerce

Restreint

Partagé en externe


8 personnes | Contenu partagé mis à jour par David Dyen-icts | 15 oct. 2018 | Etiquettes : virbac



Virbac - NavCommerce

Restreint


7 personnes | Mis à jour par David Dyen-icts | 28 sept. 2018



Virbac - Nav

Restreint

8 personnes | Mis à jour par David Dyen-icts | 28 sept. 2018



Virbac groupe

Restreint

Partagé en externe

8 personnes | Mis à jour par David Dyen-icts | 28 sept. 2018 | Etiquettes : virbac

Recommandations

Il n'y a pas de recommandations actuelles pour vous.

Direct JavaScript Injection -




```
<script type="text/javascript" src="/files/customizer/ccet.min.js"></script>  
<script type="text/javascript" src="/files/customizer/samples/flipCard/commListCardsFlipStyle.user.js"></script>  
<script type="text/javascript" src="/files/customizer/periscope.js?repoName=periscope"></script>
```



In this scenario three customisations are injected. The first is my own extension “Connections Essentials”. The second is the Communities “Flip Card” extension (by Tony Estrada); and finally, the JavaScript requisites for “Periscope”.



Here are some examples of things possible by interfering with the DOM and adding your own Event Listeners;

i. Favourite Communities

Communautés Favorites



**Cerfacs1**  
1 personne | Mis à jour par **David Dyen-icts** ▼ | 22 oct. 2018
Description

**Virbac-démo** 
8 personnes | Mis à jour par **David Dyen-icts** ▼ | 18 oct. 2018 | Etiquettes : **demo**, **virbac**

**Virbac-démo** 
Présentation Mises À Jour Récentes

Page : 1 2 3

Mes communautés préférées

	Virbac-démo	Effacer
	Kem One - démo	Effacer

OK

This extension keeps track of your “favourite” communities. Available in the Communities overview screen and within the community itself (blogs/wikis/members etc). Eventual plans to integrate into OrientMe

ii. Member Bulk Delete (Communities)

Supprimer des membres

apps.ce.collabserv.com says

Êtes-vous sûr de vouloir supprimer 4 membres? Il n'est pas possible d'annuler cette action.

OK

Cancel

Supprimer des membres

☐ Tout sélectionner

Le nombre de personnes à supprimer 4



Charles Cabouret
charlesc@ddyen.ibmcollab.com



Davy Rapp
drapp@ddyen.ibmcollab.com



Yannick Petriccioli
ypetriccioli@ddyen.ibmcollab.com



Ludovic Mora
lmora@ddyen.ibmcollab.com



Rodolphe Jeannot
rjeannot@ddyen.ibmcollab.com



Frank Adams
fadams@ddyen.ibmcollab.com



David Dyen-icts
david@ddyen.ibmcollab.com

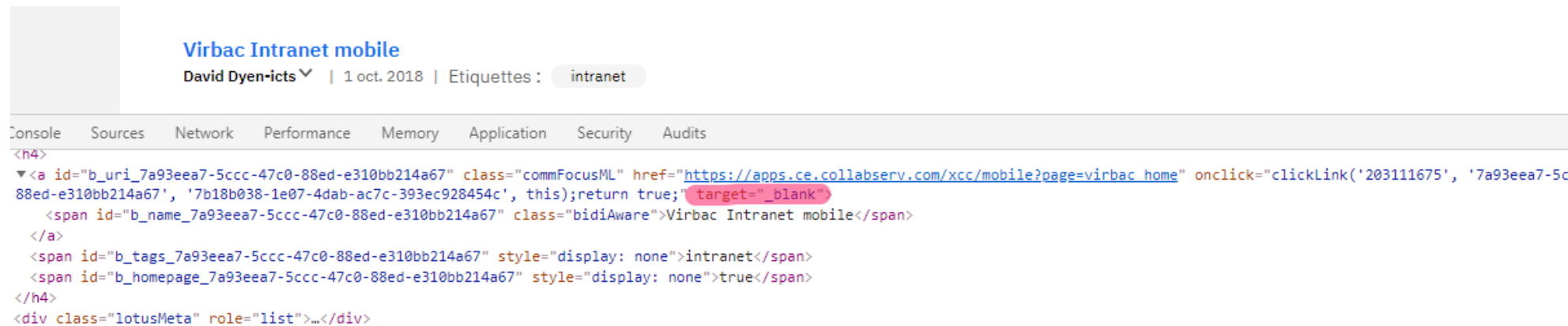


Supprimer

Annuler

The ability to delete members in bulk from Communities was a frequently complained about problem. This extension utilises the existing Communities APIs to delete a list of users.

iii. Bookmarks open in a new Tab / Page



Not much going on here except that a `target="_blank"` is added to bookmark links within the Community Overview page and the Bookmarks tab. The result then is that when clicked, the link will open in a new Tab / Window depending on your browser's behaviour. The standard version of Connections will open the link in the same window.


iv. Flip Card Extension



Visually appealing and easier Community browsing – this extension also gives a “mobile ui” feel to Communities.

This:

1 - 10 sur 22 Page : 1 2 3


Trier par : **Date** ▼ Popularité Nom




Cerfacs1  *Restreint* 


1 personne | Mis à jour par **David Dyen-icts** ▼ | 22 oct. 2018




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Virbac Commerce  *Restreint*  *Partagé en externe* 

8 personnes | Contenu partagé mis à jour par **David Dyen-icts** ▼ | 15 oct. 2018 | Etiquettes : **virbac**



Virbac - NavCommerce  *Restreint* 

7 personnes | Mis à jour par **David Dyen-icts** ▼ | 28 sept. 2018

Becomes:

1 - 10 sur 22

Page : 1 2 3

Précédent Suivant

Trier par : Date Popularité Nom

Cerfacs1

1 personne

Mis à jour par **David Dyen-icts** | 22 oct. 2018

Virbac

Virbac



Virbac

Virbac

KEM ONE

Virbac

KEM ONE

KEM ONE

Afficher : 10 25 50 100 éléments

Aller à la page 1 sur 3

Précédent Suivant

Flux pour ces communautés

The mouse is hovered over the first tile showing additional functionality / information.

Where can we use Customizer:

Cloud:

Most pages except BSS (/manage/ pages) and Verse.

BSS pages with the exception of:

“/manage/subscribers/showInviteGuestDialog/input” (guest invitation page)

And “/manage/account/user/input” (user account manage page)

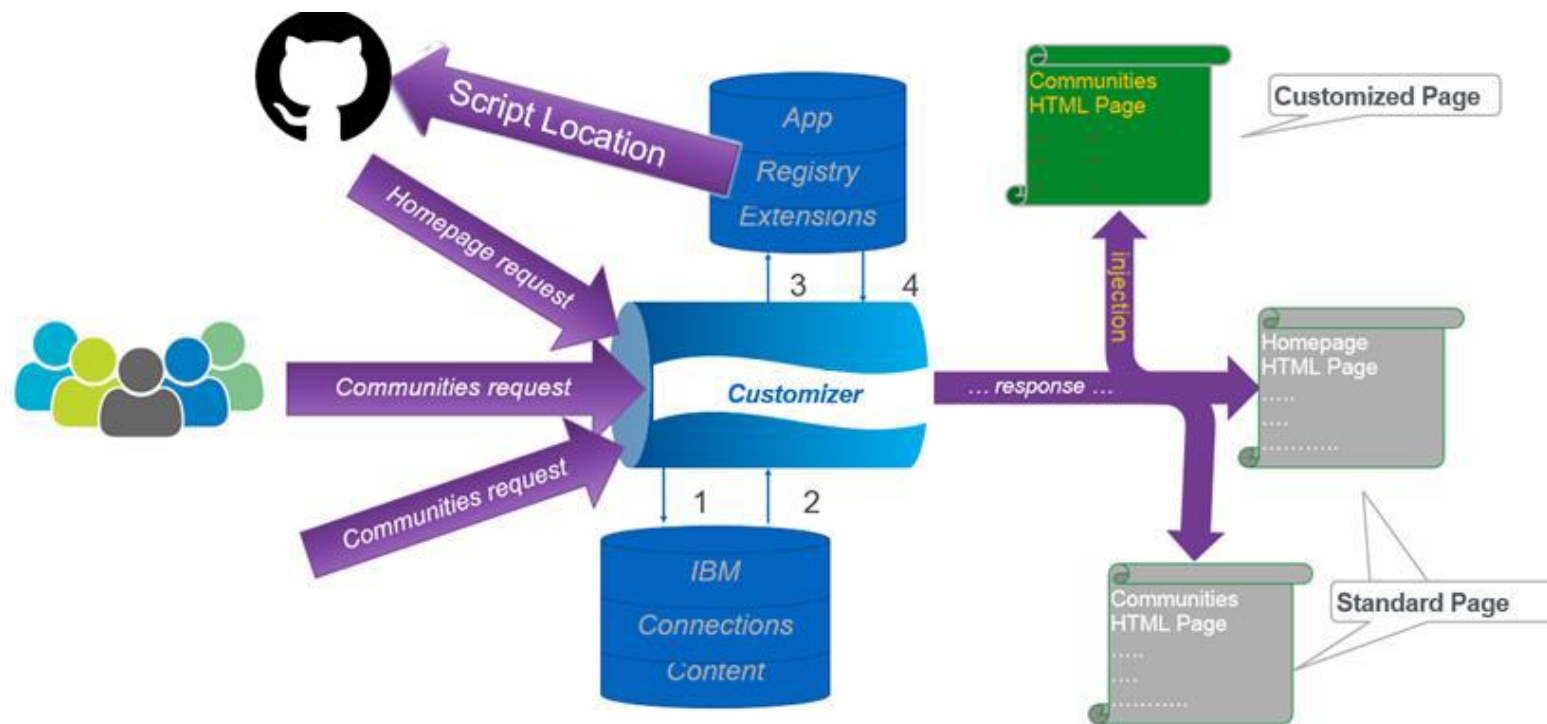
OnPremise:

Everywhere

How do we use Customizer:

The method by which you implement your scripts depends on whether you are a cloud or OnPrem customer.

Cloud:



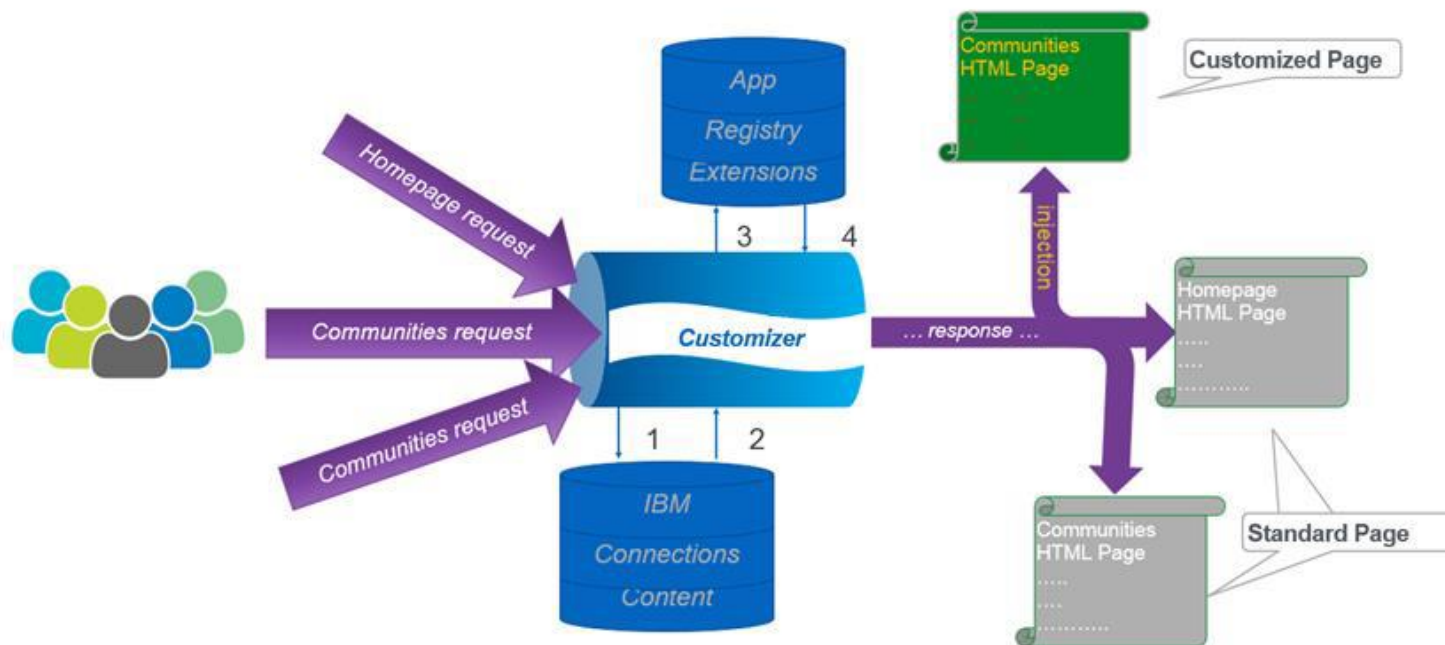
The scripts are set in IBM's Github organization github.com/ibmcnxdev. Each organisation / customer will have their own repository in which they can store their files and assets for their Customizer scripts. The location of this script is set in the App Registry definition.

```
{
  "name"      : "CE Application",
  "title"     : "Connections Essentials",
  "description": "Enhancements various areas of Connections",
  "services"  : ["Customizer"],
  "state"     : "enabled",
  "extensions": [
    {
      "name": "CE Extension main JS",
      "type": "com.ibm.customizer.ui",
      "payload": {
        "include-files": [
          "ccet.min.js"
        ]
      },
      "path": "global",
      "application": "CE Application",
      "state": "enabled"
    }
  ]
}
```

Onprem:

Onpremise is almost the exact same setup except the files and assets are stored locally on the persisted volume.

You will find this on your “Connections Pink” machine under “/pv-connections/customizations/”. Here you can create project folders to store your files. We can reuse the previous picture sans the Github logo to demonstrate the workflow for Onprem.



With our scripts and assets loaded onto the filesystem (or Github) we can now add our App Registry Definition and enable our scripts or CSS customisations.

Therefore we go to our App Registry application. Depending on whether this is cloud or onprem we use either of the following:

Cloud:

<https://apps.ce.collabserv.com/appregistry/>

After loading this you will then need to go the the v3 version of App Registry by clicking on the link –

Applications pour

Info: To create Connections Pink applications, view the [new Apps Manager](#)

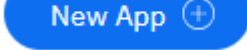

Filtrer par service:

▸ Préférences



Onprem:

<https://yourserver.de/appreg/apps>

1. Click the new app button 
2. Then the code editor 
3. Finally we put our definition in the code editor

```
1 [
2   "name": "App1",
3   "title": "App1",
4   "description": "Description for 'App1' application",
5   "services": [],
6   "extensions": []
7 ]
```

The most simple version we can have is the following:

```
{
  "services": ["Customizer"],
  "name": "My Custom Script",
  "extensions": [ {
    "type": "com.ibm.customizer.ui",
    "path": "global",
    "payload": {
      "include-files":["myscript.js"]
    }
  }
}]
}
```

This example will load “myscript.js” into every page possible from the root of the PV on OnPremise.

The possible “paths” you can use are the following:

activities files homepage news social blogs forums mycontacts profiles viewer communities global meetings search wikis

Using a “path” will limit the scope of the script to that application; or multiple applications if you use a RegEx type split. E.g. “homepage|news|social|wikis”

When the definition is ready – save it. It should then be ready for test.

Additional Information:

Things that are handy to know for creating Customizer scripts:

1. The JavaScript variable “Person” contains user email and user id
2. You can use the “gatekeeperConfig” variable to see if a function has been Gatekeeper’d or not; Boolean values
3. Community IDs are available in each community page; even if it’s technically in a separate app (wikis/blogs etc) – “ic_comm_communityUuid”
4. You can create an XHR call for most Connections API calls. Check your browser’s network tab when you are performing an action to see what payloads / methods / parameters are required.
5. You can use Connection’s built in version of Dojo (1.10.4)
6. The “lconn” object contains many Connections components and functions which can also be leveraged.

Customizer **payload** section offers various control properties

- **match-url**
 - A regular expression can be used to match against the current request
 - e.g. `id=[a-z0-9]{8}-([a-z0-9]{4}-){3}[a-z0-9]{12}` to test for a GUID in the URL
- **match-condition** - A regular expression can be matched against various criteria
- **user-name** – compares value(s) to the currently logged in user
- **user-email** – compares value(s) to the email of current user
- **user-id** – compares value(s) to user id (a.k.a. subscriber id)
- **include-files** – one or more files to inject e.g. “main.js”
- **include-repo** – name of GitHub repository containing the include files
- **cache-headers** – one or more HTTP cache headers manage Customizer resources

Customizer Caching

Customizer has an OOTB resource caching policy

- A unique **ETag** header is set for each CSS/JS resource in an app
 - This ETag is regenerated whenever the source repo is updated
- A **max-age** header of 12 hours is also automatically set
- Browser requests CSS/JS from server when **max-age** expires
- If no content changed then a **304 Not Modified** is returned
- Policy can be overridden using the payload **cache-headers**

Default
cache
headers

▼ Filter headers

Access-Control-Allow-Credentials: "true"
Cache-Control: "max-age=43200"
Content-Length: "2219"
Content-Type: "application/javascript; charset=UTF-8"
Date: "Thu, 24 May 2018 16:36:59 GMT"
Etag: "065b94c4-af20-483f-968a-68e40f872203"

```
17     "include-files": [  
18         "flipCard/commListCardsFlipStyle.user.js"  
19     ],  
20     "include-repo": {  
21         "name": "global-samples"  
22     },  
23     "cache-headers": {  
24         "cache-control": "max-age=2628000"  
25     }  
26
```

Override
defaults in
App JSON

Data Storage

Storage of data for your Customizer scripts can be useful; in the cases especially where you want to extend an application or add new functionality.

At the moment such functionality is only available on cloud; again as a non-guaranteed, without support feature.

Requesting Data:

One can request their data by calling (via XHR GET) the following url:

https://ce.collabserv.com/muse/data/get/your_script_key_here

You will receive a payload back with “status” and “message”. If it was successful the “status” will be 0 and the “message” will contain your JSON encoded data.

Saving Data:

The process is almost the same except you send data (via XHR POST) to the following url:

https://ce.collabserv.com/muse/data/post/_your_script_key_here

You then send a JSON payload like the following:

```
{ "client-data" : { "some_data" : "here" }, "script-name" : "_your_script_key_here" }
```

A “status” 0 again means successful save.

A replica solution for OnPremise exists but is not yet publicly released.

This solution is required for the use of the “Favourite Communities” extension.

Questions?