Operator Captive Portals
and Related Portals/Communications

CAPPORT WG

IETF 95

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Captive Portal Operator Examples

Traditional Captive Portal Examples
1. Service activation
2. Non-payment
3. Abuse
4. WiFi roaming activation
5. WiFi day pass

Non-Service-Interrupting Notification Examples (a form of captive portal)
1. Malware alert
2. Device-to-Product Enforcement (DPE) alert
3. Copyright Alert System (CAS) alert
4. Usage Based Billing alert
Captive Portal Operator Design Goals

Traditional Captive Portal Examples
1. Work wired or wireless
2. Work in any web browser (i.e. PC and mobile/tablet)

Non-Service-Interrupting Notification Examples
1. Not interrupt non-browser applications (i.e. IPTV, VoIP, gaming)
2. Easy to dismiss, minimally intrusive
Welcome to XFINITY Activation!
You're just a few steps away from activating your devices and experiencing entertainment like never before.

Please ensure that all the devices you wish to activate are:
1. Unpacked
2. Connected
3. Powered up
Service Signup / Self-Service Activation

Hi Mark! Set up your username and password.

- Username: Must be between 3 - 32 characters. Your username will also be your Comcast email address.
- Password: Must be between 8 - 16 characters, include letters, numbers and special characters. Do not include spaces. Password is case sensitive.
- Confirm password
- Choose security question: What is your favorite pet’s name?
- Answer security question: Must be between 3 - 25 characters. Answers are case sensitive.

Access all your account settings and much more:

- Watch thousands of movies and entire past seasons of your favorite shows
- Find your nearest XFINITY WiFi hotspot and connect your devices
- Download XFINITY apps for all your devices and enhance your experience
Service Signup / Self-Service Activation

Connection established! You're almost done.
Please choose your customization options below, and click continue to save your selections and finish your activation.

Optimize your experience with XFINITY.com as your browser homepage.
You'll be prompted to download and run our installer, which is certified safe and will not harm your computer.

Optimize your experience
Watch TV right from your browser, and get one-click access to your email, voicemail, news and headlines with XFINITY.com as your browser homepage.
Service Signup / Self-Service Activation

Thanks Mark! Your devices are activated.
You can now start using your new XFINITY services. Please note that it may take up to 15 minutes to view all TV channels & guide information.

Device Reset

- Please wait as the device is being reset and the latest configuration updates are being applied. This may take up to 15 minutes. If you ordered XFINITY High Speed Internet, please open another browser window to start using your services once the device’s flashing lights have stabilized. If the XFINITY service is not available after the allotted time, please manually reset the device.

Choose a destination and get started using XFINITY!

My Account
Access all your entertainment, view your upcoming appointments, pay your bill online, and much more.

Go to
My Account

XFINITY.com
Get breaking news from around the world, and local weather and TV listings, on a custom homepage just for you.

Go to
XFINITY.com
Service Signup / Self-Service Activation

Thanks COMCAST! Your devices are activated.
You can now start using your new XFINITY services.

Device Reset

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Choose a destination and get started using XFINITY!

My Account
Access all your entertainment, view your upcoming appointments, pay your bill online, and much more.
Go to customer.comcast.com

XFINITY.com
Get breaking news from around the world, and local weather and TV listings, on a custom homepage just for you.
Go to XFINITY.com

Thanks COMCAST! Your device is activated.
You can now start using your new XFINITY services.

Device Reset

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Choose a destination and get started using XFINITY!
Non-Payment Walled Garden

Your account is past due. Reactivate your service in a few easy steps!
You can do it online now and no technician is required.

Reactivate now

There are no fees for reactivating online. Telephone payment may incur a late fee.
Non-Payment Walled Garden

Thank you! Your payment has been submitted.

Your services are being restored!
TV and Internet may take up to 1 hour to restore. Phone service may take up to 4 hours.

Submitted on Jan 16, 2013
$4,684.46

Comcast account number
7761219561201

Credit card billing address
106 Drdp51049res S
Dover, DE 19904

Payment Confirmation Number
1000100503

VISA
Card number
XXXXXXXXXXXXX4448
Expires
6/17

Card holder's name
Pradeep N

Print confirmation
Abuse Walled Garden

XFINITY Internet®

We're sorry for the service interruption! While performing a service quality check, we were unable to identify the access point for your XFINITY Internet® service. This information is required to continue your service.

Fortunately, we can quickly return your internet service with a little help from you.

Click here to live chat with a representative or call us toll free at 855-271-5646.

The only information needed is your XFINITY Internet device information. If you don't know or can't locate it, our representative will help you.

We apologize for any inconvenience and look forward to hearing from you soon. We'll have you back enjoying your XFINITY Internet® service in minutes!
WiFi Activation

Septa:

Getting online is easy.
Surf, stream, or share from millions of XFINITY WiFi hotspots.

Awesome is having it all —
Your way
Keep up with your favorite shows and hit movies—all while streaming to your laptop, tablet or smartphone.
Learn more about XFINITY WiFi

Not an XFINITY Internet Customer?
XFINITY WiFi Sponsored Access is available here:

Email
Zip code

I have read and agree to the Terms of Service and to receive promotional emails from Comcast.

Start Session

For username & password help, call:
1-800-XFINITY
Comcast Business customers, call:
1-800-391-3000
Not an XFINITY customer? Call:
WiFi Activation

Weather

Check the weather.
We've enabled open WiFi access due to severe weather in your area. Please stay informed and safe.

Wherever you go, find
Free WiFi
Conserve usage on your wireless data plan over millions of hotspots.
WiFi Activation

PPU Pay Per Use:

Not an XFINITY Internet Customer?

XFINITY WiFi Sponsored Access is available here.

Email

Zip code

I have read and agree to the Terms of Service and to receive promotional emails from Comcast.

Start Session

For username & password help, call:
1-800-XFINITY

Comcast Business customers, call:
1-800-391-3000

Not an XFINITY customer? Call:
1-866-366-5756

English | Español

Not available in all areas. Restrictions apply. XFINITY WiFi is included for XFINITY Internet tiers of 25Mbps download speeds and above only. Comcast © 2015. All rights reserved.
Browser Notification Platform

Bot / Malware

Device to Product Enforcement
Copyright Alerts

COPYRIGHT ALERT! #1

AN IMPORTANT MESSAGE FROM COMCAST

As part of the Copyright Alerts System operated by the Center for Copyright Information, a copyright owner has sent Comcast a notice claiming your Internet service from Comcast was used to copy or share a movie, television program or song improperly. We have sent an e-mail with more information about this notice to the comcast.net e-mail address of the primary account holder in your household.

Click the button below to confirm you received this Copyright Alert and to close it. Please review the frequently asked questions about the Copyright Alerts System at http://www.comcast.com/copyrightalerts/ to learn more about it.

For a better way to find Movies, TV, and Music visit: http://www.copyrightinformation.org/a-better-way-to-find-movies-tv-music/

CLOSE THIS MESSAGE

PRIVACY POLICY   TERMS OF SERVICE   FAQs
Browser Notification Platform

Usage Based Billing

Dear XFINITY Customer,

You have reached 100% of your 300 GB monthly data plan for your XFINITY Internet Service. Additional usage will incur overage charges.

CLICK TO CLOSE

PRIVACY POLICY  TERMS OF SERVICE  USAGE METER  FAQs

COMCAST
Concluding Thoughts

• Very broadly define “captive portal”
  • No access without interactive with captive portal
  • Uninterrupted access during captive portal interaction
  • Emergency Alert System for IP networks?
• Work across many devices types and software clients
  • It’s not just about HTTP-based portals, some devices may lack a web browser (or using it may be impractical or not preferred)
• Consider an OS-level or other special messaging channel
  • Refer to work by Steve Bauer, MIT (net.info)