

# **INTRODUCTION TO JABRA XPRESS FOR LINUX**





# Contents

What is Jabra Xpress?	. 3
Benefits of using Jabra Xpress	. 3
Jabra Xpress Tools	. 3
Who should use Jabra Xpress?	. 3
Jabra Xpress Minimum System Requirements	.4
IT Administrator PC Minimum Requirements	. 4
Thin Client Minimum Requirements	. 4
What Is Installed On The IT Administrator's PC	. 4
What Is Installed On The Thin Clients?	. 4
Usage Overview	. 5
Jabra Xpress Online Tool	.7
Home	. 7
Linux Thin Client	. 8
Select Devices	. 8
Configuration1	0
Download1	2
Local Server Deployment Instructions1	12
Summary1	13
Jabra Device Updater1	15
What is Jabra Device Updater?1	15
Install Jabra Device Updater1	15
Configure Jabra Device Updater1	15
Execute the Jabra Device Updater1	17
Failed Firmware Update1	9
Support2	22
FAQ	22
List of Supported Devices	22
Need More Help?2	22
Revision History:	23



# What is Jabra Xpress?

Jabra Xpress is a collection of tools that helps IT administrators quickly and easily manage Jabra headsets throughout an organization.

# **Benefits of using Jabra Xpress**

- Update Jabra device firmware for optimal functionality
- Configure Jabra device settings for your organization's specific needs
- Install Jabra Direct
- Get a status overview of your organization's Jabra devices

# Jabra Xpress Tools

Jabra Xpress consists of three tools:

- Xpress Online Tool a web application used to create a package for mass deployment with your choice of Jabra devices, and for each device, its firmware version and settings values.
- Jabra Device Updater (JDU) a Linux application installed on the thin client, that can be invoked via a management system in order to ensure that Jabra devices are configured according to the package created with the Xpress Online Tool.
- Jabra Audio Device Dashboard (ADD) an application populating comprehensive status reports and enabling you to get an overview of all your Jabra devices, and check the warranty and firmware status (see separate user manual for Jabra Audio Device Dashboard).

Jabra Xpress is based on standard technologies and will seamlessly integrate into your existing IT management infrastructure.

#### Who should use Jabra Xpress?

Jabra Xpress is intended for use by an IT administrator responsible for maintaining Jabra Devices in an organization. The IT administrator must be able to use a management system to deploy the JDU software package to the thin clients, and to deploy the Xpress device configuration archive to a local file server.



# Jabra Xpress Minimum System Requirements

#### **IT Administrator PC Minimum Requirements**

- Internet connection.
- Internet Explorer ver. 9, Mozilla Firefox ver. 40 or later, or Google Chrome ver. 44 or later.

#### **Thin Client Minimum Requirements**

- A Linux based thin client O/S.
- The ability to install a Jabra supplied software package into the Thin Client O/S image.

#### What Is Installed On The IT Administrator's PC

No applications are installed on the IT Administrator's system

## What Is Installed On The Thin Clients?

The device configuration archive produced with the *Xpress Online Tool* contains an installation package for the *Jabra Device Updater*. This package must be installed on the thin clients.



# **Usage Overview**

The deployment method used in a thin client environment is called *Local Server Deployment*. This deployment method enables an IT administrator to deploy new device policies (device firmware versions and settings) to the thin client infrastructure.



The device configuration archive is downloaded from the Xpress Online Tool and copied to a local web or file server that all thin clients can access. When the JDU runs on the thin client, it will check the local server to see if a new device configuration archive is available. If a new archive is available, the JDU will download and cache the archive, and apply the configuration to all connected Jabra devices. If no new archive is available on the local server then the cached archive (if any) is used.

Before the JDU can execute on the thin clients, it has to be installed. The JDU installation package is also downloaded from the Xpress Online Tool together with the device configuration archive.





When you need to change existing device policies, i.e. change settings or firmware versions, you will use the Xpress Online Tool to edit the deployment package that is already deployed:

- 1. Upload the original deployment package (ZIP archive) to the *Xpress Online Tool*, and use the web application to make any modifications needed.
- 2. When done, download the updated deployment package (ZIP archive), and copy the device configuration archive to the local server. If the JDU has been updated to a new version, the new version must be installed on all thin clients.



# Jabra Xpress Online Tool

The Jabra Xpress online tool is divided into 6 step-by step sections that guide an IT administrator through the configuration and creation of a deployment package.

- Home
- Linux Thin Client
- Select Devices
- Configuration
- Download
- Summary

#### Home

# Jabra GN JABRA XPRESS REMOTE MASS DEPLOYMENT AND HEADSET MANAGEMENT

HOME

#### WELCOME TO JABRA XPRESS

Jabra Xpress is a collection of tools that helps IT administrators quickly and easily manage Jabra headsets throughout an organization.

Benefits of using Jabra Xpress

- Update Jabra device firmware for optimal functionality.
- Configure Jabra device settings for the specific needs of your organization
- Install Jabra Direct (Windows only).
- Get a status overview of Jabra devices in your organization.



#### SELECT YOUR PLATFORM



#### Choose the platform:

Select 'NEXT' for the platform you are targeting. In this document we cover the 'Linux Thin Client' flow.



# Linux Thin Client



#### Start managing your Jabra Devices

Select 'NEW' to create and download a local server deployment ZIP archive.

#### **Modify a Previous Configuration**

Select 'UPLOAD' to upload a previous ZIP archive, and edit any of the configurations to create a new ZIP archive.

#### Get an Overview of Your Devices

Select 'NEXT' to learn how to setup Jabra Audio Device Dashboard, which is a solution that provides an overview of your devices.

#### **Select Devices**

Select which Jabra devices to firmware and/or settings update from the list of supported Jabra devices. Multiple devices can be selected.

Selected devices are listed in the "Devices to manage" list. Hovering over the devices listed will display the device for quick identification.







#### Configuration

Jabra GN JABRA XPRESS REMOTE MASS DEPLOYMENT AND HEADSET MANAGEMENT							
HOME	LINUX THIN CLIENT	SELECT DEVICES CONFIC	GURATION DOWNLOAD	SUMMARY		0	
SELECTE	D DEVICES					^	
labra PRC	9465 / 9470						
,							
A	Firmware ver	rsion: Leave uncha	anged V <u>Release notes</u>				
N.	Language pa	ack: Leave uncha	anged V				
	Display lang	uage: Leave uncha	anged V				
	Downgrad	de devices that have a later firmu					
	Downgrad	ac acvices that have a later firmw					
Setting	5						
SET AL	L TO DEFAULT VALUES SET	T ALL TO LEAVE UNCHANGED					
					Availability		
Device	Protection			4	.1.1 3.19.2	â	
Protec	t settings	?	Leave unchanged	~	~ ~		
Heads	et Settings			4	.1.1 3.19.2	ô	
Audio	protection (IntelliTone)	?	Leave unchanged	$\sim$	~ ~		
Ringto	ne in headset	?	Leave unchanged	~	v v		
Heads	et touch control	?	Leave unchanged	~	v v		
Mute r	eminder tone	?	Leave unchanged	~	v v		
Tone s	setting	?	Leave unchanged	~	v v		
Voice	announcements	2	Leave unchanged	~	v v		
Base S	ettings			4	.1.1 3.19.2	â	
Forwarecord	rd desk phone and mobile ph ing	none conversations to PC for	Leave unchanged	~	v v		
Heads	et conferencing	?	Leave unchanged	~	v v		
Heads	et conference mode	2	Leave unchanged	~	~ ~		
Call pr	iority	?	Leave unchanged	~	v v	~	

Each selected device has a section on the page where you can configure that device.

SELECTED DEVICES
Jabra PR0 9465 / 9470
Firmware version: Leave unchanged V Release notes
Language pack: Leave unchanged V
Display language: Leave unchanged V
Display language

Firmware version

By default, each selected device is set to 'Leave unchanged'. The selected Jabra devices will keep their current firmware versions, and no firmware update will be initiated. A firmware version can be selected using the drop down list. Firmware versions are ranked with the latest firmware version first in the list.



#### Downgrade devices that have a later firmware version

Optionally it is possible to downgrade a device to an older version of firmware by first selecting the desired firmware version in the drop-down list, and then selecting 'Downgrade devices that have a later firmware version'. For some devices a firmware downgrade is not offered.

## Language pack and display language

The language pack and display language configuration are supported for devices that have a base station display (e.g. Jabra PRO 9470). Preferred end user display language can be selected by first selecting relevant language pack, and then selecting display language. *Settings* 

Some Jabra devices offer configurable settings that define the device's behavior (e.g. Audio protection level, Wireless range, Ringtone volume etc.) By default device settings are set to 'Leave unchanged'.

Note: Device settings might change depending on the firmware version selected.

			Avai	ability	
Device Protection			4.1.1	3.19.2	ô
Protect settings	?	Leave unchanged V	v	~	
Headset Settings			4.1.1	3.19.2	ô
Audio protection (IntelliTone)	?	Leave unchanged V	~	~	
Ringtone in headset	?	Leave unchanged V	~	~	
Headset touch control	?	Leave unchanged V	v	~	
Mute reminder tone	?	Leave unchanged V	v	~	
Tone setting	?	Leave unchanged V	v	v	
Voice announcements	?	Leave unchanged V	v	~	
Base Settings			4.1.1	3.19.2	ô
Forward desk phone and mobile phone conversations to PC for recording	r ?	Leave unchanged 🗸	~	~	
Headset conferencing	?	Leave unchanged V	~	~	
Headset conference mode	?	Leave unchanged V	~	~	
Call priority	?	Leave unchanged V	~	~	
Call merging	?	Leave unchanged V	v	~	
Touch panel backlight level	?	Leave unchanged V	~	~	
Touch panel click tone volume	?	Leave unchanged V	v	~	
Touch panel dimmer delay	?	Leave unchanged V	v	~	
Wireless range	?	Leave unchanged V	v	~	
Softphone Settings			4.1.1	3.19.2	ô
Base speaker ringtone level for softphone	?	Leave unchanged V	v	~	
Connect to softphone (PC)	?	Leave unchanged V	v	~	
Open phone line when headset is undocked	?	Leave unchanged V	v	~	
PC audio control	?	Leave unchanged V	v	~	
PC wideband audio	?	Leave unchanged 🗸 🗸	v	~	
Comfort noise	?	Leave unchanged	v	~	

#### SET ALL TO DEFAULT VALUES SET ALL TO LEAVE UNCHANGED



The available settings for each selected Jabra device are listed in the table. A setting's default value is indicated by '\*'. If a firmware version has not been selected ('Leave unchanged'), each supported firmware version will be displayed.

 $\checkmark$  indicates that the setting is supported by the selected firmware version.

Selected device settings will be enforced each time the Jabra Device Updater is executed on the thin client, and the device is connected.

Device settings set to 'Leave unchanged' will not be changed and can be managed by the end user. Select 'Protect settings' to prevent access to the settings on the Jabra device (for Jabra devices supporting device protection). Settings that support password protection will be indicated by a  $\checkmark$  in the  $\bigcirc$  column.

Devices not supporting setting protection will not show the **a** column.

#### Download



I have read and accept the End User License Agreement



Read and accept the end user license agreement by selecting 'I have read and accept the End User License Agreement'. It is not possible to download the ZIP archive until the end user license agreement has been accepted.

To download the ZIP archive, enter the local server URL, and click Download.

#### **Local Server Deployment Instructions**

Download and unpack the ZIP archive to a local folder. The ZIP archive contains 2 folders:



# Files\_to\_place\_on\_local\_server/

This folder contains the 2 files that must be made available on the local server URL:

- xpress\_package\_info.xml
- xpress\_package\_20170101\_102505.zip (the timestamp part of the filename is an example)

The ZIP archive and the XML file must be copied to the local server at a location matching the specified server URL. The ZIP archive is password encrypted, and the XML file contains information about the ZIP archive.

# Files\_to\_install\_on\_end-user\_computers/

This folder contains the Linux JDU software that must be installed on the thin client machines. There are 2 files:

- JDU-x.y.z.zip JDU version x.y.z installation packages
- Jabra.ini JDU and ADD client configuration file

The ZIP archive contains the actual JDU installation package for all supported Linux distributions. For eLux based systems, it will contain packages that should be installed using the Scout management system. For other systems there will packages suitable for the Linux flavor in question.

The *Jabra.ini* configuration file contains the local server URL entered earlier along with other JDU and ADD configuration variables. The *Jabra.ini* file must be configured according to local policies and then copied to the file systems of all thin clients that have the JDU. For more details about *Jabra.ini*, see *Configure the Jabra Device Updater* in the next section.

# Summary

After the ZIP archive has been configured, a summary report will be generated. The summary report provides an overview of selected Jabra devices and their relevant firmware versions and settings. The summary can be saved in HTML format and stored with the downloaded archive.



	MASS DEPLOYMENT AN	D HEADSET MANAGEMENT	
HOME LINUX THIN CLIENT SELECT DEVICE	S CONFIGURATION	DOWNLOAD SUMMARY	
SUMMARY CONTENT OF DEPLOYMENT PA		AD SUMMARY	
LINUX DISTRIBUTION			
Jabra Device Updater for eLux			
LOCAL SERVER DEPLOYMENT			
Local server ore path			
DEVICES			
Jabra PRO 9465 / 9470			
Update device to firmware version	4.1.1		
Language pack	North America		
Display language	French		
Downgrade devices that have a later firmware version	Yes		
Device Protection			ô
Protect settings		Not protected	•
Audia protection (IntelliTene)		Pacis protection against sound spikes	Ö
Ringtone in headset		Enabled	
Headset touch control		Enable mute and volume control	
Mute reminder tone		Enabled	
Tone setting		Normal	
Voice announcements		English voice	
Base Settings		-	ô
Forward desk phone and mobile phone conversations	to PC for recording	No	
Headset conferencing		Enabled	
Headset conference mode		End headset conference after each call	
Call priority		New call priority	
Call merging		Enabled	
Touch panel backlight level		5	
Touch panel click tone volume		Medium	
Touch panel dimmer delay		60	
Wireless range		Normal	
Softphone Settings			ô
Base speaker ringtone level for softphone		Medium	
Connect to softphone (PC)		Yes	
Open phone line when headset is undocked		No	



# Jabra Device Updater

## What is Jabra Device Updater?

*Jabra Device Updater (JDU)* is an application that runs on Linux based thin clients. Its purpose is to update Jabra devices according to the configuration (Xpress package) created in the Jabra Xpress Online Tool as described in the previous section.

When executed, the JDU will download the Xpress package from the local server URL, and update attached Jabra devices that are covered by the Xpress package. Firmware and settings on covered devices will be aligned with the content of the Xpress archive.

#### Install Jabra Device Updater

When you have generated and downloaded a ZIP archive using *Jabra Xpress Online Tool*, you need to install the JDU software into the thin client Linux system. This is typically done using a management tool. For example, on eLux based systems the management tool will be *Scout Manager*. If the JDU is already installed on the thin clients, you should ensure that they all run the version included in the downloaded ZIP archive. There may occasionally be new releases of the JDU, with bug fixes and support for new devices. To ensure smooth operation always make sure to run the latest JDU that came with the downloaded ZIP archive.

Unpack the downloaded ZIP archive and go into the folder *Files\_to\_install\_on\_end-user\_computers/* where you will find *JDU-x.y.z.zip* that contains the actual installation packages for all supported thin client Linux distributions. Unpack this *JDU-x.y.z.zip* and install the packages using your management tool.

# **Configure Jabra Device Updater**

The *Files\_to\_install\_on\_end-user\_computers/* folder also contains the *Jabra.ini* configuration file, pre-filled with values entered in the online tool during Xpress package creation. Note that the Jabra.ini file configures both the JDU and the Audio Device Dashboard (ADD) client.

The *Jabra.ini* file must be deployed on the thin clients to override the default JDU configuration. Optionally use a text editor to tailor *Jabra.ini* to the group of clients you are deploying to, and then use your management system to deploy it. Note, that some thin client management systems may offer integrated editing of the *Jabra.ini* configuration.

If you don't deploy a *Jabra.ini* file, then you get the default configuration, where the JDU is configured to be passive and without a GUI. In the default configuration the JDU must be triggered from the management system, explicitly specifying the local server URL.

The location of Jabra.ini in the thin client file system depends on which operating system is used:

eLux	/setup/Jabra.ini
Ubuntu (and others)	/opt/jabra/Jabra.ini



The default Jabra.ini looks like this: [JDU] ShowGui=false RunOnSystemStart=false LocalServerUrl= PermanentFolder=

[ADD] AutoPost=false ServerUrl=

There are 2 sections '[JDU]' and '[ADD]', for configuration of the JDU and the ADD client respectively. The configuration variables are described below:

Group	Variable name	Value	Description
[JDU]			
	ShowGui	true/false	If true, enable GUI mode. Otherwise, the JDU runs in
			the background.
	RunOnSystemStart	true/false	If true, the JDU will trigger after the system has
			started, otherwise nothing will happen.
	LocalServerUrl	URL	Points to the directory on the local server that
			contains the files:
			<pre>xpress_package_info.xml</pre>
			<pre>xpress_package_yyyymmdd_hhmmss.zip</pre>
	PermanentFolder	Folder	If a value is set, the JDU will use that folder to save
		path	its files and turn them persistent. Please check
			permissions accordingly. After the first run of the
			JDU, the folder will contain:
			<pre>xpress_package_info.xml</pre>
			<pre>xpress_package_yyyymmdd_hhmmss.zip</pre>
[ADD]			
	AutoPost	true/false	If true, the ADD client will automatically post device
			info after a device has been plugged in. Otherwise,
			the device info is cached for later posting. The URL to
			use must be set in the 'ServerUrl' variable. See the
			ADD user guide.
	ServerUrl	URL	The ADD server endpoint. See the ADD manual.
			Example:
			<pre>http://addserver.mycorp.com/api/v1/device</pre>

The *ShowGui* and *RunOnSystemStart* variables determine if and when the JDU is triggered autonomously, i.e. independently of the management system:



RunOnSystemStart	ShowGui	JDU Trigger policy	
false	false	The default configuration. The JDU does not run,	
		unless triggered from the management system, or	
		locally from the thin client.	
true	false	The JDU will be triggered just after boot when the	
		network is ready. No GUI will be shown, so progress	
		can only be seen in the system log.	
false	true	The JDU be triggered when a Jabra device is plugged	
		into a USB port. The GUI will be shown if any	
		connected Jabra device is out-of-date according to the	
		Xpress package pointed to by 'LocalServerUrl'.	
true	true	The JDU is triggered after system start when the user	
		logs into the desktop, as well as when a Jabra device is	
		plugged in. The GUI will be shown if any connected	
		Jabra device is out-of-date according to the Xpress	
		package pointed to by 'LocalServerUrl'.	

Below is an example configuration with all features enabled:

[JDU]
ShowGui=true
RunOnSystemStart=true
LocalServerUrl=http://localserver.mycorp.com/path/to/my/config
PermanentFolder=/home/path/to/my/folder

[ADD]

AutoPost=true

ServerUrl=http://addserver.mycorp.com/api/v1/device

#### **Execute the Jabra Device Updater**

Once the JDU has been installed it can be executed, typically remotely from a management system, but it is also possible to invoke it from a shell prompt locally on the thin client. If *ShowGui* and/or *RunOnSystemStart* is configured the JDU can run autonomously.

To operate, the JDU needs to have the xpress package on the local file system. Typically, the JDU will download the xpress package from the local server, but you could also *push* the xpress package to the thin client filesystem using a management system or a network file copy tool such as *rsync* or *scp*, depending on your IT environment.

The table below shows 3 ways to actively invoke the JDU.

Command line	Notes	
/usr/local/gn/jdu.sh	No command line argument. The local server URL will	
	be determined by LocalServerUrl variable in Jabra.ini.	



/usr/local/gn/jdu.sh http://my.localserver.com/foo/bar	The local server URL is specified as command line argument, overriding the <i>LocalServerUrl</i> variable in <i>Jabra.ini</i> . The JDU will download the xpress package	
	from http://my.localserver.com/foo/bar.	
/usr/local/gn/jdu.sh	The xpress package is specified as a locally stored	
/tmp/xpress_package_20170506_091113.zip	file. The JDU will not contact any local server.	

There are 2 ways in which the JDU is invoked autonomously: by system start, and by USB hotplug:

- If *RunOnSystemStart* is specified in *Jabra.ini*, then the JDU will use the URL specified in *LocalServerUrl* when triggered during boot. If no URL is specified, the JDU will not be able to update.
- If *ShowGui* is specified in *Jabra.ini* and the JDU is triggered by USB hotplug, then the JDU will use the URL specified in *LocalServerUrl*. If none is specified, the JDU will not be able to update.

When the JDU downloads the xpress package from local server, it determines the package filename by first downloading the *xpress\_package\_info.xml* file. This XML file contains information about the xpress package and the actual filename. The xpress package is cached in the local file system, which means that the JDU can skip the download step if nothing has changed on the local server since last download.

Below is an example session with *ShowGui=false*, where the local server URL is specified on the command line:

```
$ /usr/local/gn/jdu.sh http://localserver.mycorp.com
Downloading Xpress archive from local server..
_____
UPDATE FIRMWARE
[0b0e:1042] Jabra PRO 9465 / 9470, update: 3.19.2 -> 4.1.1
   0% starting..
  10% updating..
  20% updating..
  30% updating..
  40% updating..
  50% updating..
  60% updating..
  80% updating..
  90% updating..
 100% updating..
 100% complete
```



```
UPDATE SETTINGS

[0b0e:1042] Jabra PRO 9465 / 9470, firmware version: 4.1.1

[0b0e:1042] Write settings.. SUCCESS!

OVERALL STATUS: SUCCESS

$
```

First the firmware is updated to the version specified in the xpress archive, and then all settings are updated to the values specified in the xpress archive. The JDU only updates the device if either firmware version or settings values differ from what is specified in the xpress archive. When *ShowGui=true* and the device firmware and/or settings do not match the configuration on the local server, a GUI will pop up:



Once firmware and settings update completes successfully, the GUI will indicate success and automatically quit after 10 seconds:



#### Failed Firmware Update

A firmware update can fail if the JDU is somehow interrupted, or if it experiences USB communication problems. After a failed update, the device remains in a special firmware update mode, where it needs to be recovered.



If *ShowGui*=false, then the JDU does not attempt to recover. In many cases running the JDU again will recover the device, but sometimes the device needs to be power cycled. In this case, the device USB connector must be unplugged and plugged. For externally powered devices the power supply must be unplugged and plugged.

If ShowGui=true, the JDU GUI will guide the user through a recovery attempt:



After the user has power cycled the device and clicked the *Recover* button, the JDU starts the recovery:



When the recovery completes successfully and settings have been applied, the JDU quits automatically after a 10 second count down:



If the recovery fails, the user can click *Cancel* in the *Firmware Update Failed* dialog box. The dialog box will then dismiss, and the user can click *Quit* to exit the JDU application or click *Run again* to



retry recovery. If the user quits without completing recovery, recovery will be attempted next time the JDU runs.



# Support

# FAQ

Visit jabraxpress.jabra.com to view the complete online FAQ.

- Q Why is my Jabra device not in the list of supported devices?
- A Jabra Xpress for thin clients supports a subset of devices popular in a large corporate setting. View the product data sheet at jabraxpress.jabra.com for the latest list of supported Jabra devices.
- Q If Jabra Device Updater is interrupted will my device be affected?
- A No. All devices can be recovered by a new firmware update. Sometimes a power cycle is needed before the recovery will succeed.
- Q Does Jabra Xpress require the end user to be logged in before an update can start?
- A No. In fact, on thin client systems, it is recommended to shut down the virtual desktop environment before starting the JDU. This is to reduce USB disturbance, and to avoid interference with what the user is doing inside the virtual desktop. So the recommendation is to schedule the update to run outside normal hours, without any virtual desktop related services running.
- Q Can I update the device settings without updating the device firmware version?
- A Yes. In the Jabra Xpress Configuration pane, under Selected devices, select 'leave unchanged' for the firmware version. This will ensure that the installed end user devices will not be firmware updated.
- Q Can I update the device firmware without updating device settings?
- A Yes. In the Jabra Xpress Configuration pane, under Selected devices, all device settings values should be set to leave unchanged. If not, click the 'Set all to leave unchanged' button.

# List of Supported Devices

View the Product data sheet at jabraxpress.jabra.com for the latest list of supported devices.

#### **Need More Help?**

Web: jabraxpress.jabra.com



# **Revision History:**

Maintenance interval: \_ \_ \_ (Half-yearly / Yearly / Bi-yearly).

Rev	Date	Editor	Reviewer(s)	Description	
А	2020.02.14	Niels Skou Olsen	Peter Lustrup	2.0	
D	2023.10.03	Gianmarco Dello	Allen Cuinet	Added PermanentFolder to the JDU	
D		Preite Castro	Allah Gulhot		

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