

ZEXTRAS SECRET RECIPE FOR PRIVATE, MODERN COLLABORATION



CARBONIO

CREATE YOUR DIGITAL WORKPLACE

With Zextras Carbonio



ZEXTRAS®

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Introduction

In the latest years, the physical offices have started losing importance, while the possibility to work in “digital” offices was becoming increasingly real. **Organizations were forced to consider software to help people collaborate remotely**, be they at home or on a white beach, thousands of miles away from the premise.

Due to Covid-19, this trend has had a huge leap ahead, and the current market leaves no choice but choosing **the right software to enable employees to work as they were in the office**.

Of course, replicating the in-person meetings and the healthy brainstorming is extremely difficult if one person is lying on the sofa and the other is in the office, where the colleagues can't stop asking them questions.

Therefore, now organizations' mission is to decide how to deal with the situation wisely and to short-list products to face it at best. They have to **assure not only efficiency and productivity** but also **data security**. Actually, the more spread the workforce is, **the higher the risk of losing control of the corporate data**.

This whitepaper was made to introduce you to the **remote-ready characteristics** of **Zextras Carbonio**.

With this paper, you'll learn how Zextras Carbonio helps public and private organizations to implement a private digital workplace to secure their data.

When In Doubt, Choose Centralization

To re-create an effective digital workspace, you might need to mix and match different pieces according to your needs.

Good for you, the choice is wide!

In the latest years, **collaboration solutions are shifting towards convergence.**

E-mail platforms started adding teamwork features. On the other hand, file management and teamwork solutions add e-mails, calendars, and contacts features inside the same product.

Why is it happening?

The users' needs are the reason why. Context switching and integration costs are convincing organizations and employees to consider centralized tools. It's increasingly clear how useful these all-in-one platforms are to **help users staying focused** and not switching between channels.

In addition to this, the tools' overlap can create confusion both to the decision-makers, when they have to choose technologies, and to the end-users inside an organization. In fact, people often don't know where they are supposed to perform activities. On the other hand, **centralization is surely a boon for companies**, as they can forget the never-ending integration processes, which are expensive and, most of all, very difficult to undertake and maintain.



The Future of Work

By 2020	By 2021	By 2022	By 2023	By 2024
Insights from AI-connected media, places, and things will transform collaboration strategy focus from groups to networks of individuals in 10% of organizations .	More than 70% of business users will be substantially provisioned with cloud office capabilities.	More than 66% of employees will consider flexible working arrangements to be a differentiator when selecting an employer.	Fewer than 33% of digital workers will select the corporate office as their preferred place to work.	Remote work and changing workforce demographics will impact enterprise meetings so that only 25% will take place in person , down from over 60% today.

A digital workplace solution is not just a convenience; it's a necessity.

Digital Workplace Immediate Benefits

The benefits of transitioning to a digital workplace instantly become apparent, even if you're not working from home.

For instance, imagine the Sales Team wants to use the conference room on the second floor between 2 and 3 p.m. on Tuesday. The Marketing Team already booked the room for 2 to 5 p.m. on the same day. The Sales Team naturally proceeds with booking the room, and it instantly becomes clear that the room is unavailable in the calendar.

So, the Sales Team sends a message on their communication system to arrange a better time. They agree on 10 to 11 a.m. They submit their booking, which is available this time. Monday night, everyone gets an e-mail reminder about their meeting the next morning, with instructions to the second-floor conference room.

Now imagine this process outside a digital workplace. In the best-case scenario, it can take half a day to schedule such a thing. In some cases, they don't even notice that the room is booked until the conference day that can ruin the whole schedule.

Don't be shy: raise your hand if it has ever happened to you, too! We bet so.

With the growing Internet of Things (IoT), there's no shortage of technologies to support a digital workplace. Although one company might choose to use a combination of Slack, Zoom, and Outlook or any other available alternatives, **nothing performs quite like a solution that incorporates all the necessities of a digital workplace in one package.**

Zextras Carbonio **VS** Context Switching

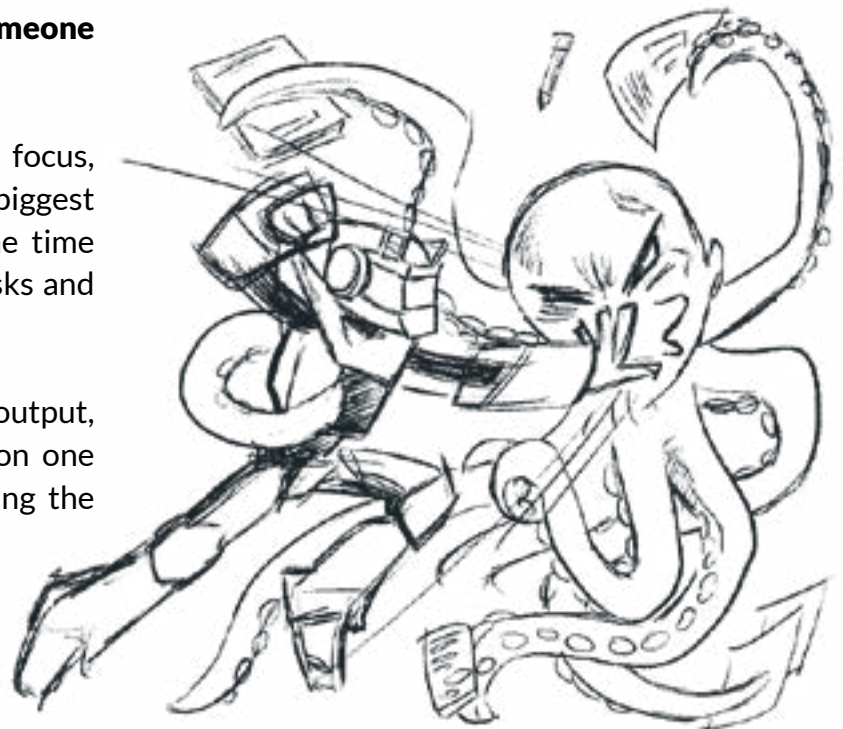
The individual who works between two contexts **loses 20% effort to context switching.**

Source: Gerald Weinberg's, Quality Software Management: Systems Thinking, 2004.

Put it simply, **context switching is when someone jumps between tasks and tools.**

It drastically decreases the productivity, focus, and performance of the employees. The biggest problem with context switching is that the time an employee spends switching between tasks and different tools seems completely normal.

However, it silently wastes a lot of time, output, and resources. Having different features on one platform is much more efficient than having the same functionalities on different platforms.



Can You Relate To These?

1

You are on a Zoom call with your colleagues but need to **forward an e-mail** to them. As soon as you fire up your browser to forward the e-mail, you lose the video feed of the conversation and if something important is going on you have to ask them to wait for you.

2

You are simultaneously working on Google Sheet with your colleagues. But you need to insert a piece of text from a document file sent to you by your colleague. The problem is that Zoom sends the document file. Therefore you should **download the document, open it with another app** like Microsoft Word to **copy the text, bring the sheet back and insert the copied text.**

These scenarios might seem quite normal to you, however, as soon as you start using a unified platform that supports all the necessary collaboration and communication tools, you'll realize:

- how much time you can save,
- how much more productive you could be,
- how fluid your overall experience would be.

All these factors translate to a win-win situation with a more enjoyable and satisfying digital workplace for the employees, leading to a better company outcome.

Throughout several years of experience, Zextras Carbonio has gathered these tools to provide companies and users with the most efficient solutions. You will learn more about the unique features that Carbonio brings to your company in the following pages.

Features For Your Digital Workplace

We can summarize features every digital workplace should have in a few categories:

- **Communication System,**
- **Collaboration System,**
- **Mobile Device support.**

Let's see how the features of Zextras Carbonio fulfill each category.



Communication System

Zextras Carbonio is equipped with a fully-fledged communication system consisting of private chat, group messaging, corporate messaging, file sharing, screen sharing, and video conferencing, **all in a unified solution.**

Zextras Carbonio offers the best available collaboration system. It supports **real-time communication** both for the registered users of the system and with external stakeholders. Zextras Carbonio greatly facilitates collaboration in your company by integrating all the tools one might need.

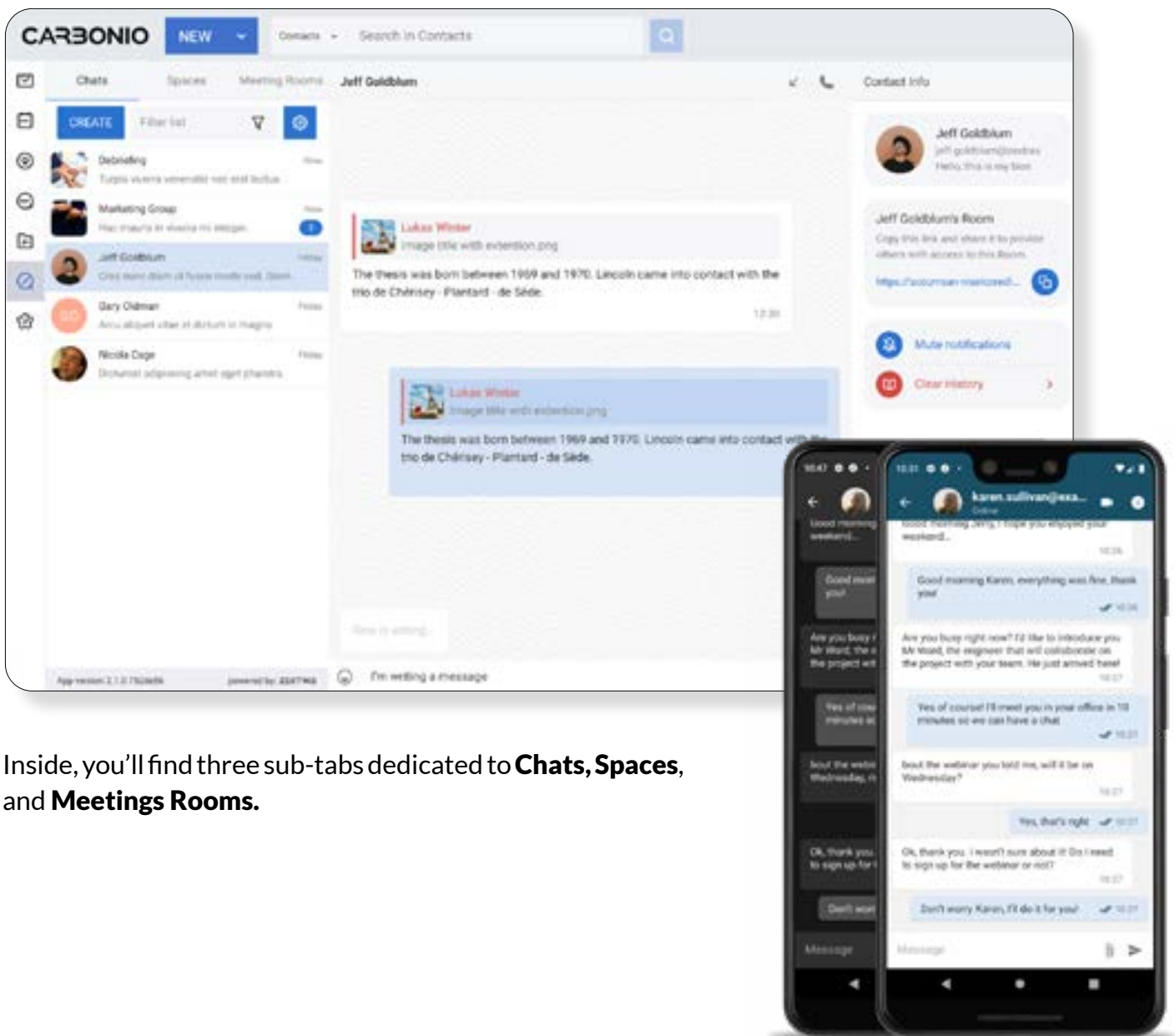
Features like one-to-one text messaging, group text messaging, audio calls, video meetings, corporate messaging with Spaces and Channels, file-sharing, screen sharing, message delivery status, and reads awareness.

This includes other important characteristics such as COS and user availability, built-in TURN server compatibility, peer-to-peer WebRTC protocol to avoid server load, and dedicated audit log.

Modern Interface

“Simplicity is the essence of elegance.”

The communication system interface is modern, elegant, and easy to use. It lets users easily organize chats, group chats, Spaces and Channels, file sharing, and even instant meetings with users from outside the system. It's **intuitive and easy** to interact with.



Inside, you'll find three sub-tabs dedicated to **Chats, Spaces,** and **Meetings Rooms.**

Features Done Right

Chats

It enables two or more users to keep in touch. Using the Chats feature, you can:

- * Create a Chat to have a **private** conversation with another user,
- * Create a **Group** to communicate with **more than one user** at the same time,
- * Create audio and **video calls**,
- * **Share** your files,
- * Take advantage of **autocomplete** suggestions to insert other participants.

Meeting Rooms

Thanks to this feature, you can **create meetings instantly, or plan them for later.**

In some scenarios, you might need to communicate with external users who are not registered. Meeting Rooms solve this problem, as registered users of the platform can create video calls anyone can join, whether they are registered or not. **Users can invite external participants** using their e-mail addresses. An e-mail will be automatically sent to them with a link to access the meeting. Before accessing the room, the invited user will need to enter a name to be displayed in the meeting.

Structured Corporate Messaging

Spaces

Spaces are **topic-driven chats** for more than two participants that give the ability to an administrator to moderate the conversation.

They are best for **corporate departments** doing projects or discussing topics to communicate until the project or discussion ends. Unlike Groups, these Spaces contents and conversations **stay accessible** for later reference, even when the participants leave the group. In Spaces, group video chat is also available.

Channels

Spaces divide into smaller chat areas called Channels. For example, Spaces can be used as an overall corporate chat area for all company employees, while Channels are group chats for **every department** in a lower hierarchy to create structured corporate environments.

After creating a Channel inside a Space, employees can join it freely. Channels can only be created by the administrator of a Space and have moderators of their own.

All the Functions You'll Ever Need

Text Message Actions

In Chats, all messages can be forwarded, replied to, deleted, and even edited after sending the message.

Message Status

Chats include message status with three phases based on the number of checkmarks shown next to each message. No checkmark next to the message means that the message was not delivered, one checkmark means that the message has been delivered to the server, and a double checkmark means that the message has been read.

Video Conferencing

Video conferencing can support more than 100 participants. This is made possible by a video server, based on the peer-to-peer WebRTC protocol. You can start a video call within the Chats (either one-to-one chats or groups) or Spaces. You can also turn the microphone or camera off during the video chat.

Screen Sharing

During a video chat, you have the ability to share your screen simply by clicking on the screen icon at the bottom of the video chat window.

Online Status

If the participant is online, their status is shown by a green circle next to their avatar.

Groups

Inside the Chats sub-tab, you can create a group. Groups are the same as chats but containing more than two participants. In Groups, file-sharing and group video calls are also available.



File-Sharing

Chats has file-sharing capability: attach your file by attaching it through the paperclip icon, or dragging and dropping the file into the chat area.

Video Conferencing: Speed & Scalability

Video conferencing is one of the most important aspects of corporate communication in a digital workplace. It is also **the most resource-intensive feature** as well especially for a large number of participants. It uses the web to connect a group of people via a live video and audio feed and has a lot of advantages, naming a few would be:

- saving time and money,
- bringing remote workers together,
- being more engaging than phone conferencing,
- increasing efficiency and productivity.



Video conferencing is turning into an increasingly viable means of communication for businesses both small and large. But it's almost impossible to connect hundreds of people with limited bandwidth and processing power.

The good news is with Carbonio, **you don't need high bandwidth and processing power.**

Like lots of technologies, popularity makes the scalability problem even more significant. For example, you might have heard of peer-to-peer video conferencing. Basically, peer-to-peer video conferencing can only be scaled to a limited extent.

The reason is that peer-to-peer video meetings provides a one-on-one video feed which means it sends your video feed directly to the person you're talking to. Therefore the more people you add to a meeting, the more bandwidth and processing power you need. It also depends on everyone's internet connection stability, and adding more people introduces more instability.

There are two big obstacles here: **limited bandwidth, limited processing power.**

You can completely overcome these obstacles using Zextras Carbonio.

Carbonio extremely lightweight video conferencing supports **more than 100 participants.**

How Is That Even Possible?

In a nutshell, via using a **centralized video server**.

A centralized video server can tackle mentioned problems by sending your video feed to a server for distribution instead of sending the feed directly to the person you're talking to.

Zextras has already addressed these problems by introducing its centralized video server.

1. Zextras video server solves the bandwidth problem

by merging all the video and audio feeds into a single feed and sending it to all participants. There is no need for each participant to send their feed to all the other participants, which requires huge bandwidth. Therefore, it drastically optimizes bandwidth and resources by receiving all the video and audio feeds as a single normalized feed.

2. Zextras video server solves the processing power problem

by receiving all the video and audio feeds as a single normalized feed. There is no need for the participants to process multiple feeds containing all the participants' data which requires lots of processing power.



Incredibly Secure

Do you need an independent call platform providing secure communication?

You can reach your goal **with this video server as a part of the Zextras Carbonio communication system**, therefore, **your data stays on your own server, allowing you to keep your messages and conversations private.**

Collaboration System

Zextras Carbonio comes with a powerful collaboration system as well. It is a big addition to your digital workplace. It also includes a **complete file storage system to manage documents, spreadsheets, and presentations, etc.** Users can **work directly on the platform**, either individually or collaboratively with remote colleagues.

Intuitive Interface

Carbonio collaboration system interface is straightforward and user-friendly, so users don't require any preparation to learn functionalities. It makes file management extremely quick, fluid, smooth, and easy for the users via easily accessible and well-designed tools.

File Management

The most crucial feature in a collaboration system is file management, including actions such as uploading, deleting, downloading, renaming, and copying files.

Users can't share a file giving another user higher permissions than they have themselves: this adds to the security of the collaboration system.

Files, and/or entire folders can be shared with people outside the organization as well. **There's the possibility to share public links or protect files with passwords.** The link can be sent via e-mail to prevent e-mails from becoming too heavy; however, you have the option of directly attaching a file to an e-mail.



File Versioning

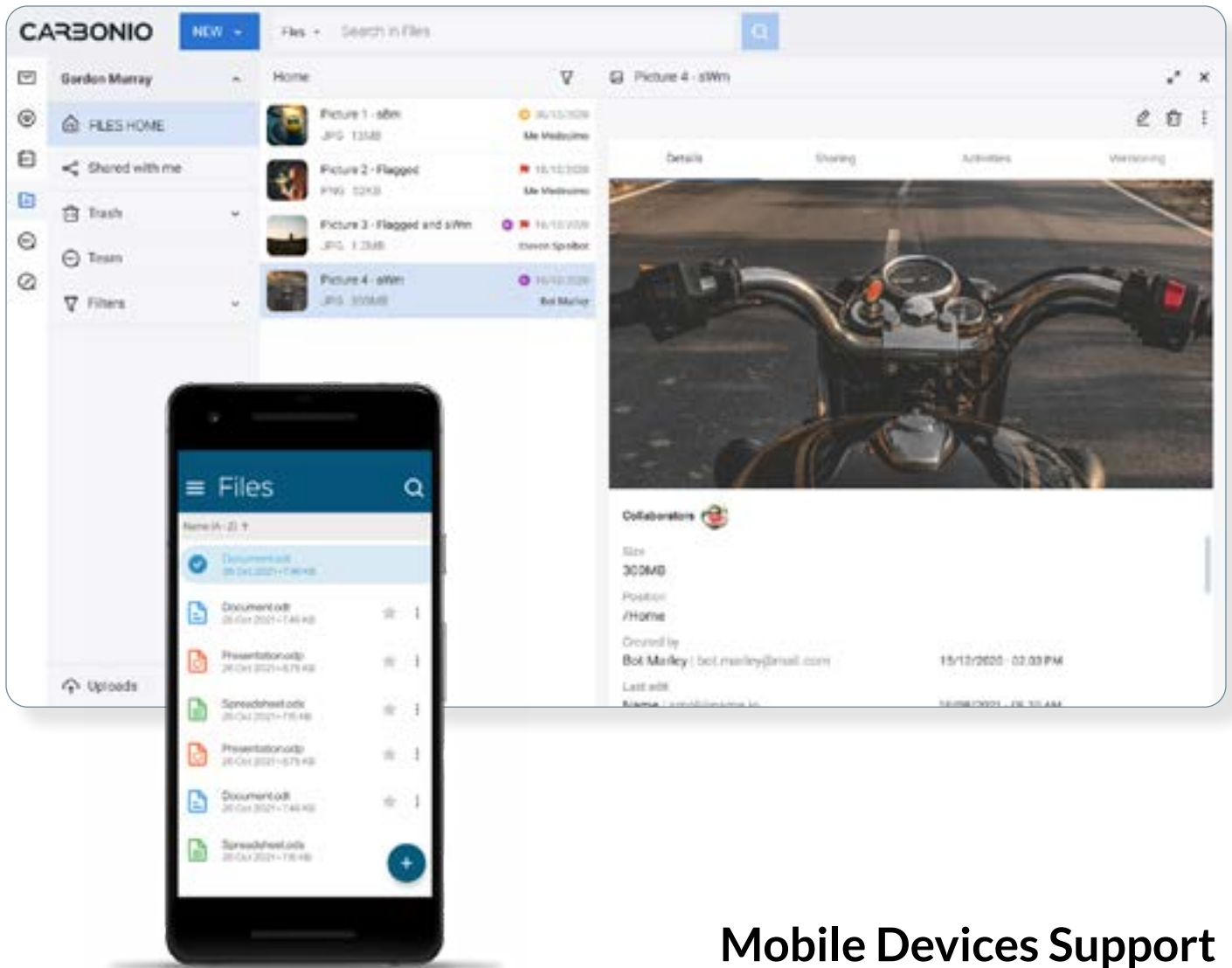
It keeps track of all versions of the files stored to allow users to **recover and download previous file versions.**

Once you upload a new version, you can decide whether to keep or delete the older ones.

Storage Optimization

In the Carbonio collaboration system, folders do not appear as mailbox folders. **Metadata is stored in a dedicated HSQL Database, while all files are stored in a dedicated folder within a volume's root.**

File naming is hash-based to achieve native deduplication. Compression rules follow the volume's settings.





Mobile Devices Support

E-mail sync

Digital workplace solutions should also include mobile devices, as nowadays, more and more employees are performing work-related activities from their smartphones or tablets. **Zextras Carbonio offers all the above-mentioned features in mobile devices through their dedicated apps.**

Any of your users can continue their communication and collaboration on their mobile devices. The **apps can be downloaded for free and work on both iOS and Android as native apps developed with the native language of each operating system.**

 Users can remotely access their list of **chat conversations** and **files** using the mobile apps. This way, they will never miss any important message from their colleagues even when traveling.

 Users can also **share** images, photos, or other files located on their devices. Moreover, the push notification feature allows users to **preview messages** directly from the home screen without entering the app.

Enhance your Productivity

Zextras Carbonio includes a productivity system which is dedicated to **documents, spreadsheets, and presentations**. They are natively integrated, and users can **work directly on the platform, either individually or collaboratively** with remote colleagues.

Collaboration on documents is also scalable. You can use the Carbonio productivity system **on as many servers as you want** to allow employees to optimize their collaboration to their needs.

By leveraging Carbonio features you can avoid using multiple software or integrating third-party systems. However, we want to stress the point of what really makes Carbonio special, among the other e-mail and collaboration platforms.

Zextras Carbonio & Data Security

What is Missing in Others Platforms?

Privacy.



Zextras Carbonio as a Private Software

We care about privacy and data sovereignty, and we want to offer you 100% secure software. This fits even the most “delicate” markets and countries, **as the platform is compliant with any privacy regulation** and **assures any company to control their data and protect their communications**. In the following pages, we’ll tell you how the features add security to your digital workplace.

Zextras Carbonio is not limited to its communication and collaboration features; **security is of paramount importance to us.**

As useful as the communication and collaboration features are, **the most important criteria for a company's choice of where to store its data are privacy and security.**

Security is most often viewed as a concrete set of rules and elements, but in practice, it is as much a technical problem as it is an operational issue. Effective security measures always include a constant need for attention. Most companies need to address not only what they do but also how it is done.

Security measures need to be directly assessed based on the limitations of resources and the ever-growing demands and challenges. The most important challenge being the ability to focus on what really matters, which constitutes the principal essence of security efficiency.

In Zextras Carbonio, we have tried to bring together the **best technologies with an analytic view of security.** The most common and the most damaging threats are the center of attention.

Some of our most important security components are discussed below.

In a realistic situation, **no organization can repel all potential attacks,** even the most secure companies are to some extent vulnerable.

Understanding this fact is crucial in making correct decisions for security: we need to be most attentive towards most real threats, those with the greatest possibility of occurrence. There is an essential need for a realistic view of data security, where the main threats come from, and which data is most important to protect.

To achieve the above-mentioned goal, a **high-fidelity and stable system shall be employed.** Security requires **the latest technology and solutions, but efficiency in implementation** is also key in its overall effectiveness.

Carbonio Authentication: Protect User Data From Threats



E-mail security is one of the biggest concerns nowadays. Hacking users, infecting their computers with viruses and trojans, and sending millions of SPAM e-mails against them will all contribute to this concern.

Authentication strategies such as user and password, Access Token, Security Assertion Markup Language, Two-Factor Authentication, Mobile Password, QR Code are always evolving. Knowing how to use and manage them will certainly help you to improve your mailbox security. Zextras enables an administrator to apply and manage these strategies easily.

The goal of this feature can be summarized in **improved security**:

1. by allowing the **user to manage multiple credentials** and enabling them for **different services**,
2. by enabling the **admins to define policies for each service**, and **giving them more granular control over the user sessions**.

Features such as:

- **Two-factor** authentication
- **SAML** authentication
- **QR code** support for authenticator apps
- **One-time password**
- **Mobile** password
- **Disconnecting** mobile devices in case of **loss or theft**,

all contribute to a more secure collaboration and communication system.



Carbonio Backup: Protect Company Data From Hazards

Generally, two widespread circumstances can badly corner you as a system administrator:

- When a huge disaster jeopardizes the entire server,
- When a user asks the system administrator to help them restore something important that they deleted.

The first one is can easily cause a lot of distress for system administrators. A system crash is a pervasive example of that. The second one, on the other hand, requires a lot of time and resources for the administrator to restore the single item. Although you might think the second one is the result of users' negligence, it is prevalent.

Whereas it is demanded by one of the users who accidentally deleted an e-mail or a disaster striking the whole server, you need to have access to the lost data to restore them. There is only one way out of these situations, and that is **having a full-fledged backup system that can guarantee the security of your data.**

Zextras Backup has cleverly addressed both the situations mentioned above via implementing a lot of features that a traditional backup lacked for a long time as a unified package that can be conveniently used by the system administrators.

Many system administrators have wondered why different e-mail servers don't have a built-in backup system. Furthermore, no third-party alternative is perfect. Which one to choose, which one works better, how to evaluate their performance, which one is more effective, should I use a home-cooked one for myself, etc., are all legit questions a system administrator might ask. Answering these questions is not easy either.

Therefore, when something happens that puts your data in danger, you either have already gone through the hassle of answering these questions, or regret that you lost your data.

There is a third option, however: **handling everything with Zextras Carbonio Backup, relying on its innovative features**, all contributing to a more reliable collaboration and communication system:

- Real-time Scanner
- Snapshot-based Backup System
- Undelete Restore Function
- Backup on External Storage
- Coherency Check
- SmartScan
- Backup Purge

Conclusions

On these pages, you could get to know the features Carbonio has to offer you, not only to smooth and **enhance the end-users daily activities** but also to support **admin tasks** and **protect your business**.

However, solutions to fit your digital workplace and take it to the next level are numerous and different. This is why, beyond features, one thing to bear in mind when you are choosing a product is the security level it offers, and your need for **data sovereignty**.

When it comes to communicating and collaborating, internally and externally, the software you choose should be able to **protect your data**. Zextras products focus entirely on data sovereignty and **are designed to give control back to you**. This way, you will be GDPR compliant, but most of all you can be sure your data stays yours.

To know more about how Zextras Carbonio can be the best fit for your virtual office and also for your privacy and security needs, read more on [our Community](#).

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