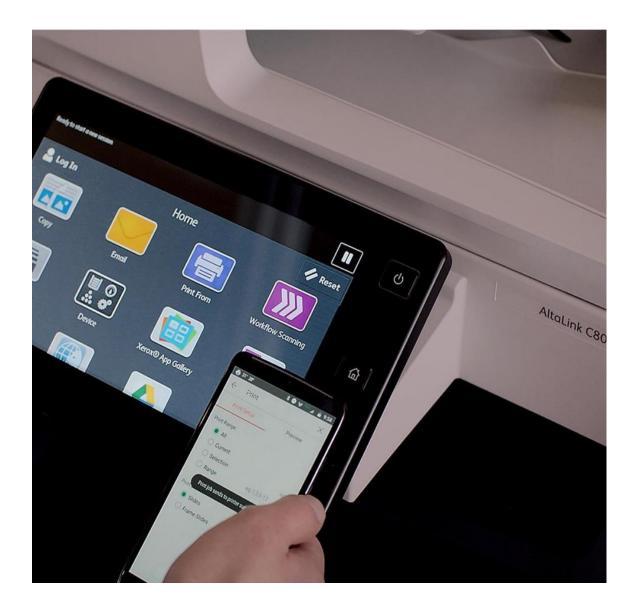
# Security Guide

Xerox® Workflow Central Platform





© 2021 Xerox Corporation. All rights reserved. Xerox<sup>®</sup> and Connectkey<sup>®</sup> are a trademarks of Xerox Corporation in the United States and/or other countries. BR34289

Other company trademarks are also acknowledged.

Document Version: 2.0 (October 2021).

# Contents

1.	Introduction	1-1
	Purpose	
	Target Audience	
	Disclaimer	1-1
2.	Product Description – Web Application	
	Overview	
	App Hosting	
	Components	
	Architecture and Workflows	
	Data flow Diagram	
	User Data Protection	
	Application data stored in the Xerox cloud	
	Application data stored in the ABBYY Cloud OCR service	
	Application data stored in the ZamZar Audio service	
	Application data stored in the Google Vision service	
	Application data stored in the Google DLP service	
	Application data stored in the Microsoft Translator service	
	Application data stored in the Summarizebot service	
	Application data stored in the RPost RMail service	
	Local Environment	
3.	Product Description – Xerox <sup>®</sup> ConnectKey App	
	Overview	
	App Hosting	
	Components	
	Architecture and Workflows	
	Data flow Diagram	
	User Data Protection	
	Application data stored in the Xerox cloud	
	Application data stored in the ABBYY Cloud OCR service	
	Application data stored in the ZamZar Audio service	
	Application data stored in the Google Vision service	
	Application data stored in the Google DLP service	

	Application data stored in the Microsoft Translator service	3-20
	Application data stored in the Summarizebot service	3-20
	Application data stored in the RPost RMail service	
	Local Environment	3-21
4.	Network Information	4-22
	Protocol, Ports and URLs	4-22
	Web Application	4-22
	Xerox <sup>®</sup> ConnectKey Application	4-23
5.	General Security Protection	5-25
	User Data Protection within the products	5-25
	Document and File Security	5-25
	Hosting - Microsoft Azure	5-25
	Cloud Storage – Microsoft Azure	5-25
	Xerox <sup>®</sup> Workplace Suite/Cloud and Single Sign-On Services	5-25
	User Data in transit	5-26
	Secure Network Communications	5-26
	Xerox Workplace Suite/Cloud and Single Sign-On Services	5-26
6.	Additional Information & Resources	6-27
	Security @ Xerox	6-27
	Responses to Known Vulnerabilities	6-27
	Additional Resources	6-27

# 1. Introduction

## Purpose

The purpose of the Security Guide is to disclose information for Xerox<sup>®</sup> Apps with respect to device security. Device security, in this context, is defined as how data is stored and transmitted, how the product behaves in a networked environment, and how the product may be accessed, both locally and remotely. This document describes design, functions, and features of the Xerox<sup>®</sup> Apps relative to Information Assurance (IA) and the protection of customer sensitive information. Please note that the customer is responsible for the security of their network and the Xerox<sup>®</sup> Apps do not establish security for any network environment.

This document does not provide tutorial level information about security, connectivity or Xerox<sup>®</sup> App features and functions. This information is readily available elsewhere. We assume that the reader has a working knowledge of these types of topics.

# **Target Audience**

The target audience for this document is Xerox field personnel and customers concerned with IT security. It is assumed that the reader is familiar with the apps; as such, some user actions are not described in detail.

### Disclaimer

The content of this document is provided for information purposes only. Performance of the products referenced herein is exclusively subject to the applicable Xerox<sup>®</sup> Corporation terms and conditions of sale and/or lease. Nothing stated in this document constitutes the establishment of any additional agreement or binding obligations between Xerox<sup>®</sup> Corporation and any third party.

# 2. Product Description – Web Application

### Overview

This Xerox<sup>®</sup> Solution delivers 2 separate software offerings, each aligning to meet specific user goals. This section applies to the Web App which is run from a compatible web browser on a PC, Tablet, Laptop computer or Mobile phone.

The Xerox<sup>®</sup> Workflow Central Platform provides multiple workflows for the logged in customer based on their account privileges.

Application	What can I do?
Web App	Create an account
	Login to my account
	Purchase a subscription
	<ul> <li>Manage user access to a subscription</li> </ul>
	View available document workflows
	Execute a document workflow
	Save a customized document workflow
	<ul> <li>Execute a document workflow from the Xerox<sup>®</sup> Print and Scan Experience App.</li> </ul>

Table 1 Web App user benefits

#### APP HOSTING

The Web App consists completely of cloud hosted components that are accessed via a web browser. A brief description of each can be found below.

#### Web App

The Web App consists of three key components, the Web App User Interface, the Workflow Central Platform Service Interface and the Workflow Central Platform Microservices Interface. These components enable the following behavior in a web browser:

- 1. Provides the user with the application UI that executes functionality in the cloud.
- 2. Executes Microservices, which delegates work such as document format conversion and language translation.

#### **Xerox App Gallery**

The App Gallery component is a web application hosted on the Microsoft Azure Cloud System. The App Gallery Component implements the following functions for the Xerox<sup>®</sup> Workflow Central Platform Web App: Authentication, Account Creation, Account Management, Access List Management, Access Authorization, App Subscription Purchase, App Subscription Management, and CK App Installation on Xerox<sup>®</sup> Devices.

#### Xerox Cloud Repository Middleware

The Cloud Repository Middleware component is a service hosted on the Microsoft Azure Cloud System. The Cloud Repository Middleware interfaces with the following commercial cloud repository providers: Xerox<sup>®</sup> DocuShare<sup>®</sup> Go Content Management Platform, Microsoft (OneDrive and O365 SharePoint), Google Drive, Dropbox and Box.

For the Xerox<sup>®</sup> Workflow Central Platform Web App to communicate and interact with a specific cloud repository provider, the user needs to establish a connection. This connection process utilizes an OAuth 2.0 login workflow provided by the cloud repository provider, which requests the username and password. Upon successful authentication, an OAuth access token is returned to the browser from the cloud repository. The access token is passed to the Cloud Repository Middleware for use when calling a cloud repository provider's API. The access token is never stored.

#### **Xerox<sup>®</sup> Translates Service**

The Xerox<sup>®</sup> Translates Service component is a set of translation APIs hosted in the Microsoft Azure Cloud System. The Web App uses the API to translate documents into a different language while maintaining the layout and format of the original document.

#### Xerox<sup>®</sup> Auto-Redaction App

The Xerox<sup>®</sup> Auto-Redaction App component contains a set of document redaction APIs hosted in the Microsoft Azure Cloud System. The Workflow Central Platform uses the API to generate a document with a set of specified data redacted from the original document.

#### ABBYY Cloud OCR Service

The ABBYY Cloud OCR Service component is a set of partner, cloud hosted Optical Character Recognition (OCR) and document format conversion APIs. The Workflow Central Platform uses the API to convert documents into one of the following Microsoft formats: DOCX, PPTX or XLXS.

#### **Microsoft Translator Service**

The Microsoft Translator Service component is a set of partner, cloud hosted language translation APIs.

#### Zamzar Audio Service

The Zamzar Audio Service component is a set of partner, cloud hosted audio file conversion APIs. The Workflow Central Platform uses the Zamzar Audio API to convert a document into an Audio file.

#### **Google Vision Service**

The Google Vision Service component is a set of partner, cloud hosted OCR APIs. The Workflow Central Platform uses the API to generate editable text documents from an image of a handwritten document.

#### Google DLP Service

The Google DLP (Data Loss Prevention) Service component is a set of partner, cloud hosted document analysis and redaction APIs.

#### SummarizeBot Service

The SummarizeBot Service component is a set of partner, cloud hosted document summarization APIs. The Workflow Central Platform uses the API to generate summarized documents.

#### **RPost RMail Service**

The RPost RMail Service component is a partner, cloud hosted email services platform. The Workflow Central Platform uses the RMail API to send Registered and Encrypted email when it is specified in a document workflow.

#### **Twilio SendGrid Email Service**

The Twilio SendGrid Email Service component is a partner, cloud hosted email services platform. The Workflow Central Platform uses the SendGrid API to send email when it is specified in a document workflow.

#### COMPONENTS

#### Xerox® Workflow Central Platform – UI & Services Interface

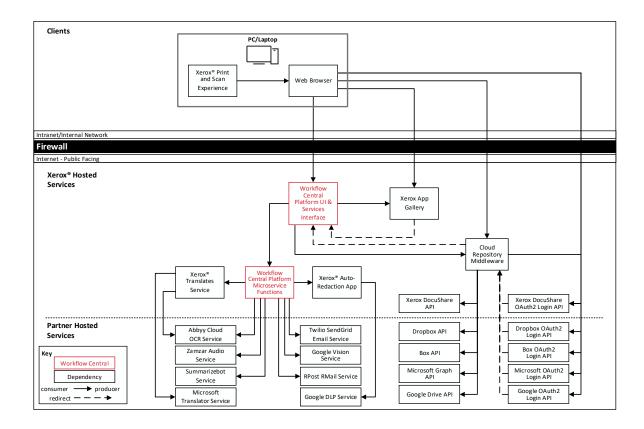
The UI & Service Interface component is a service hosted on the Microsoft Azure Cloud System. The component is responsible for hosting the web pages, which are displayed in the User's web browser on their PC. Additionally, the component provides user access and management, business logic services, workflow management and execution, and the Workflow Central Platform APIs.

#### Xerox<sup>®</sup> Workflow Central Platform - Microservices

The Microservices component is a set of Microsoft Azure Functions hosted on the Microsoft Azure Cloud System. The various microservices interface with a host of 3<sup>rd</sup> Party APIs to perform specific operations like Audio Conversion, Translation, Format Conversion, OCR, Summarization and Email.

### Architecture and Workflows

#### DATA FLOW DIAGRAM



### Workflows

**Create Account** 

Step 1:	User enters the URL for the Web App in a web browser on their PC/Laptop/Tablet.
Step 2:	User selects the "Create Account" button.
Step 3:	User enters required information for Account Creation and selects OK button.
Step 4:	User receives an email with instructions on how to complete the creation of their account.
Step 5:	User opens the email and clicks on a link to complete the creation of their account from the web browser on their PC/Laptop/Tablet or Mobile Phone.
Purchase Subsc	ription
Step 1:	User enters the URL for the Web App in a web browser on their PC/Laptop/Tablet or Mobile Phone.
Step 2:	User selects the "Log In" button and enters their account username and password.
Step 3:	User selects the "View Plans and Pricing" button.
Step 4:	User selects the Plan they wish to purchase.
Step 5:	User chooses the "Subscription Duration" and "Subscription Plan" and then selects the "Checkout" button.
Step 6:	User enters Payment information and selects the "Place Order" button.
Step 7:	An order confirmation with order number is displayed.
Step 8:	User receives an email with a payment receipt.

# Add User Access to Subscription

Step 1:	User enters the URL for the Web App in a web browser on their PC/Laptop/Tablet or Mobile Phone.
Step 2:	User selects the "Log In" button and enters their account username and password.
Step 3:	User navigates to the Accounts page.
Step 4:	User selects the "Invite" button to provide access to the subscription for another user.
Step 5:	User enters the email address of the user whom they wish to grant access to the App subscription.
Step 6:	The invited User receives an email informing them that they have been granted access to the App subscription along with a link to create an account.
Step 7:	Invited User opens the email and clicks on a link to complete the creation of their account from the web browser on their PC/Laptop/Tablet or Mobile Phone.

#### Execute a Document Workflow

Step 1:	User enters the URL for the Web App in a web browser on their PC/Laptop/Tablet or Mobile Phone.
Step 2:	User selects the "Log In" button and enters their account username and password.
Step 3:	The Web App displays the document workflows available for execution by the user.
Step 4:	User selects a document workflow to execute.
Step 5:	User navigates to and selects the input file for the document workflow.
Step 6:	User modifies the settings for each operation defined in the document workflow
Step 7:	User defines the settings for where to put the output from the document workflow (Email or Save to Local File).
Step 8:	User selects Run button to start the execution of the document workflow.
Step 9A:	If Email was defined as the output setting, for the document workflow, then an email is sent to the specified recipients with a link to download the generated output file.
Step 9B:	If Save to Local File was defined as the output setting, for the document workflow, then the generated output file is saved to the specified location.

#### Save Customized Document Workflow

Step 1:	User enters the URL for the Web App in a web browser on their PC/Laptop/Tablet or Mobile Phone.
Step 2:	User selects the "Log In" button and enters their account username and password.
Step 3:	The Web App displays the document workflows available for execution by the user.
Step 4:	User selects a document workflow to execute.
Step 5:	User navigates to and selects the input file for the document workflow.
Step 6:	User modifies the settings for each operation defined in the document workflow
Step 7:	User defines the settings for where to put the output from the document workflow (Email or Save to Local File).
Step 8:	User selects "Save as New" button to create a new customized document workflow.
Step 9:	User enters a document workflow name, selects an icons and chooses whether the document workflow will be private or public.
Step 10:	User selects the "Save" button to create the customized document workflow.

Execute a document workflow from the Xerox<sup>®</sup> Print and Scan Experience desktop application

Step 1:	User runs the Xerox <sup>®</sup> Print and Scan Experience application from their PC/Laptop.
Step 2:	User initiates a scan from the Xerox <sup>®</sup> Print and Scan Experience application.
Step 3:	User chooses Xerox <sup>®</sup> Workflow Central Platform as the destination for the scanned document.
Step 4:	The Xerox <sup>®</sup> Print and Scan Experience application uploads the scanned document to Xerox <sup>®</sup> Workflow Central Platform and then launches Xerox <sup>®</sup> Workflow Central Platform in the user's default web browser.
Step 5A:	If "Trial Usage" has NOT been exhausted, the Web App is automatically "Logged In" as a Guest.
Step 5B:	If "Trial Usage" has been exhausted, the Web App displays the "Log In" screen and User enters their account username and password to "Log In".
Step 6:	The Web App displays the document workflows available for execution by the user.
Step 7:	User selects a document workflow to execute.
Step 8:	The scanned document uploaded by the Xerox <sup>®</sup> Print and Scan Experience application is automatically selected as the input file for the document workflow.
Step 9:	User modifies the settings for each operation defined in the document workflow
Step 10:	User defines the settings for where to put the output from the document workflow (Email or Save to Local File).
Step 11:	User selects Run button to start the execution of the document workflow.

Step 12A:	If Email was defined as the output setting, for the document workflow, then an email is sent to the specified recipients with a link to download the generated output file.
	If Save to Local File was defined as the output setting, for the

Step 12B:If Save to Local File was defined as the output setting, for the document workflow, then the generated output file is saved to the specified location.

# **User Data Protection**

#### APPLICATION DATA STORED IN THE XEROX CLOUD

User data related to the categories below are stored in cloud persistent storage.

- · Customized workflows explicitly saved by the user
- Workflow data, including intermediate processing files and output files, for workflow jobs that are
  processing or pending completion due to required user interaction.
- · Logs of completed and cancelled workflow jobs.

The following activities will trigger a delete event, for digital document files that meet the associated criteria.

- A delete occurs when the system detects intermediate processing files exist after a job has completed.
- A delete occurs for workflow output files, where the user has chosen to have an email sent with a download link, on the 7<sup>th</sup> day after the output file was created.

The balance of data stored in the cloud, that is unrelated to user Personally Identifiable Information, may be stored indefinitely for event reporting purposes.

#### APPLICATION DATA STORED IN THE ABBYY CLOUD OCR SERVICE

User documents that have been requested to be converted to a Microsoft® Office format are stored in cloud persistent storage until a delete event occurs.

User documents that need an OCR operation performed are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the converted document file.

 A delete occurs when the system detects that the document conversion job has completed and the converted document has been downloaded.

For detailed information on User Data Protection and Security for the Abbyy Cloud OCR Service, please follow this link: https://www.abbyy.com/cloud-ocr-sdk/legal/dpa/

#### APPLICATION DATA STORED IN THE ZAMZAR AUDIO SERVICE

User documents that have been requested to be converted to an Audio are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the converted audio file.

• A delete occurs when the system detects that the document conversion job has completed and the converted document has been downloaded.

For detailed information on User Data Protection and Security for the Zamzar Audio Service, please follow this link: https://developers.zamzar.com/dpa

#### APPLICATION DATA STORED IN THE GOOGLE VISION SERVICE

User handwritten documents that have been requested to be converted to text are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document file and the converted text file.

 A delete occurs when the system detects that the document conversion job has completed and the converted document has been downloaded.

For detailed information on User Data Protection and Security for the Google Vision Service, please follow this link: https://cloud.google.com/vision/docs/data-usage

#### APPLICATION DATA STORED IN THE GOOGLE DLP SERVICE

User documents that have been requested to be redacted are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files.

 A delete occurs when the system detects that the document redaction inspection job has completed and the locations of the redacted data fields, within the document, has been downloaded.

For detailed information on User Data Protection and Security for the Google DLP Service, please follow this link: https://cloud.google.com/dlp/docs/support/data-security

#### APPLICATION DATA STORED IN THE MICROSOFT TRANSLATOR SERVICE

User documents that have been requested to be translated to a different language are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the translated document file.

• A delete occurs when the system detects that the document translation job has completed and the translated document has been downloaded.

For detailed information on User Data Protection and Security for the Microsoft Translator Service, please follow this link: https://www.microsoft.com/en-us/translator/business/notrace/

#### APPLICATION DATA STORED IN THE SUMMARIZEBOT SERVICE

User documents that have been requested to be summarized are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the summarized document file.

• A delete occurs when the system detects that the document summarization job has completed and the summarized document has been downloaded.

For detailed information on User Data Protection and Security for the SummarizeBot Service, please follow this link: https://www.summarizebot.com/privacy\_policy.html

#### APPLICATION DATA STORED IN THE RPOST RMAIL SERVICE

User data related to the categories below are stored in cloud persistent storage.

- · User documents that have been requested to be sent in a Registered and Encrypted email
- Sender's email address
- · Recipient's email address

The following activities will trigger a delete event, for the document files sent in the email. The documents are stored so that the recipient can download them from links contained in the email.

• A delete occurs on the 7<sup>th</sup> day after the Registered and Encrypted email has been sent.

The following activities will trigger a delete event, of the Sender's email address.

• A delete can only occur by sending a request to WorkflowCentralSupport@xerox.com to have the email address permanently removed from the RPost RMail system.

The following activities will trigger a delete event, of the Recipient's email address.

• A delete occurs on the 7<sup>th</sup> day after the Registered and Encrypted email has been sent.

For detailed information on User Data Protection and Security for the RPost RMail Service, please follow this link: https://rpost.com/legal-notices/privacy-notice/

#### LOCAL ENVIRONMENT

#### Application data transmitted

Application data related to the categories below are transmitted to/from a User's PC/Laptop/Tablet or Mobile Phone.

- Account Login data
- App Access/Entitlement data
- Workflow Input, Output and Control Parameters
- Workflow Execution Status data

#### Application data stored on the User's PC/Laptop/Tablet or Mobile Phone

- The application stores the user's "access token" in Browser Local Storage. The "access token" has limited lifespan of 2 hours
- The application stores the user's "refresh token" in Browser Session Storage. The "refresh token" has a lifespan of 100 days and can only be used one time. The Browser Session Storage is purged whenever the user closes the browser or the browser tab running the app.
- The application will store files, generated during the execution of a workflow, when a workflow is defined to download the workflow's output.

#### HTTP Cookies

The Web App only stores non-tracking, technically necessary data required by Microsoft Azure.

# 3. Product Description – Xerox<sup>®</sup> ConnectKey App

### Overview

This Xerox<sup>®</sup> Solution delivers 2 separate software offerings, each aligning to meet specific user goals. This section applies to the Xerox ConnectKey App which is executed from a Xerox<sup>®</sup> Device.

The Xerox® Workflow Central Platform provides two primary workflows for the logged in customer:

- 1. Execute a document workflow
- 2. Save a customized document workflow

Application	What can I do?
ConnectKey App	Login to my account
	<ul> <li>View available document workflows</li> </ul>
	Execute a document workflow
	<ul> <li>Save a customized document workflow</li> </ul>

Table 1 ConnectKey App user benefits

#### APP HOSTING

The ConnectKey App depends heavily on cloud hosted components. A brief description of each can be found below.

#### ConnectKey App

The ConnectKey App consists of four key components, the device weblet, the ConnectKey App User Interface, the Workflow Central Platform Service Interface and the Workflow Central Platform Microservices Interface. The device weblet is a ConnectKey/EIP web app that enables the following behavior on a Xerox<sup>®</sup> device:

- Presents the user with an application UI that executes functionality in the cloud.
- Interfaces with the EIP API, which delegates work, such as document scanning and printing.
- Executes Microservices, which delegates work such as document format conversion and language translation.

#### **Xerox App Gallery**

The App Gallery component is a web application hosted on the Microsoft Azure Cloud System. The App Gallery Component implements the following functions for the Xerox<sup>®</sup> Workflow Central Platform ConnectKey App: Authentication and Access Authorization.

#### Xerox Extensible Interface Platform®

During standard usage of the ConnectKey App, calls to the device web services are used to initiate and monitor scan functions and to pull relevant details related to device properties and capabilities.

#### Single Sign-On via Xerox® Workplace Suite/Cloud and SSO Manager

In order to improve user experience, by removing the need to log in to the Xerox<sup>®</sup> Workflow Central Platform ConnectKey App each time, Xerox offers an optional Single Sign-On (SSO) capability. Users can log into the printer and are then able to launch the app without the need to provide additional credentials.

#### Xerox Cloud Repository Middleware

The Cloud Repository Middleware component is a service hosted on the Microsoft Azure Cloud System. The Cloud Repository Middleware interfaces with the following commercial cloud repository providers: Xerox DocuShare Go, Microsoft (OneDrive and O365 SharePoint), Google Drive, Dropbox and Box.

In order for the Xerox<sup>®</sup> Workflow Central ConnectKey App to communicate and interact with a specific cloud repository provider, the user needs to establish a connection. This connection process utilizes an OAuth 2.0 login workflow provided by the cloud repository provider, which requests the username and password. Upon successful authentication, an OAuth access token is returned to the device from the cloud repository. The access token is passed to the Cloud Repository Middleware for use when calling a cloud repository provider's API. The access token is never stored.

#### **Xerox<sup>®</sup> Translates Service**

The Xerox<sup>®</sup> Translation Service component is a set of translation APIs hosted in the Microsoft Azure Cloud System. The Web App uses the API to translate documents into a different language while maintaining the layout and format of the original document.

#### Xerox<sup>®</sup> Auto-Redaction App

The Xerox<sup>®</sup> Auto-Redaction App component contains a set of document redaction APIs hosted in the Microsoft Azure Cloud System. The Workflow Central Platform uses the API to generate a document with a set of specified data redacted from the original document.

#### ABBYY Cloud OCR Service

The ABBYY Cloud OCR Service component is a set of partner, cloud hosted Optical Character Recognition (OCR) and document format conversion APIs. The Workflow Central Platform uses the API to convert documents into one of the following Microsoft formats: DOCX, PPTX or XLXS.

#### Microsoft Translator Service

The Microsoft Translator Service component is a set of partner, cloud hosted language translation APIs.

#### Zamzar Audio Service

The Zamzar Audio Service component is a set of partner, cloud hosted audio file conversion APIs. The Workflow Central Platform uses the Zamzar Audio API to convert a document into an Audio file.

#### **Google Vision Service**

The Google Vision Service component is a set of partner, cloud hosted OCR APIs. The Workflow Central Platform uses the API to generate editable text documents from an image of a handwritten document.

#### Google DLP Service

The Google DLP (Data Loss Prevention) Service component is a set of partner, cloud hosted document analysis and redaction APIs.

#### SummarizeBot Service

The SummarizeBot Service component is a set of partner, cloud hosted document summarization APIs. The Workflow Central Platform uses the API to generate summarized documents.

#### **RPost RMail Service**

The RPost RMail Service component is a partner, cloud hosted email services platform. The Workflow Central Platform uses the RMail API to send Registered and Encrypted email when it is specified in a document workflow.

#### **Twilio SendGrid Email Service**

The Twilio SendGrid Email Service component is a partner, cloud hosted email services platform. The Workflow Central Platform uses the SendGrid API to send email when it is specified in a document workflow.

#### COMPONENTS

#### Xerox<sup>®</sup> Device with Xerox<sup>®</sup> Workflow Central Platform – Xerox<sup>®</sup> ConnectKey<sup>®</sup> App

This is an EIP capable device that can print, scan and execute ConnectKey Apps installed from the Xerox<sup>®</sup> App Gallery. In this case, the device has the Xerox<sup>®</sup> Workflow Central Platform installed.

#### Xerox® Workflow Central Platform – UI & Services Interface

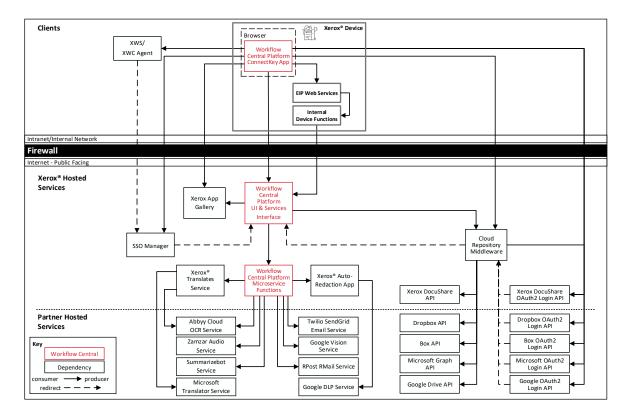
The UI & Service Interface component is a service hosted on the Microsoft Azure Cloud System. The component is responsible for hosting the web pages, which are displayed on the UI of the Xerox<sup>®</sup> Device. Additionally, the component provides user access and management, business logic services, workflow management and execution, and the Workflow Central Platform APIs.

#### Xerox® Workflow Central Platform – Microservices

The Microservices component is a set of Microsoft Azure Functions hosted on the Microsoft Azure Cloud System. The various microservices interface with a host of 3<sup>rd</sup> Party APIs to perform specific operations like Audio Conversion, Translation, Format Conversion, OCR, Summarization and Email.

### Architecture and Workflows

# DATA FLOW DIAGRAM



#### Workflows

#### Execute a Document Workflow

Step 1:	User Launches the App on the Xerox <sup>®</sup> Device.
Step 2:	User enters their account username and password. (If first login, user can agree to save credentials to XWS/C storage for future use. On subsequent logins, credentials are automatically retrieved and applied.)
Step 3:	The document workflows available for execution by the user are displayed.
Step 4:	User selects a document workflow to execute.
Step 5:	User modifies the scanning options (ie; single sided, original size, etc).
Step 6:	User modifies the settings for each operation defined in the document workflow
Step 7:	User defines the settings for where to put the output from the document workflow (Email or Print). <i>NOTE: Some workflows only support Email as an output option.</i>
Step 8:	User selects Run button to start the execution of the document workflow
Step 9A:	If Email was specified as the output setting, for the document workflow, then an email is sent to the specified recipients with a link to download the generated output file.
Step 9B:	If Print was defined as the output setting, for the document workflow, then the output document is printed to the Xerox <sup>®</sup> Device with the defined print options.

Save Customized Document Workflow

Step 1:	User Launches the App on the Xerox <sup>®</sup> Device.
Step 2:	User enters their account username and password. (If first login, user can agree to save credentials to XWS/C storage for future use. On subsequent logins, credentials are automatically retrieved and applied.)
Step 3:	The document workflows available for execution by the user are displayed.
Step 4:	User selects a document workflow to execute.
Step 5:	User modifies the scanning options (ie; single sided, original size, etc).
Step 6:	User modifies the settings for each operation defined in the document workflow
Step 7:	User defines the settings for where to put the output from the document workflow (Email or Print). <i>NOTE: Some workflows only support Email as an output option.</i>
Step 8:	User selects "Save as New" button to create a new customized document workflow.
Step 9:	User enters a document workflow name, selects an icons and chooses whether the document workflow will be private or public.

Step 10:User selects the "Save" button to create the customized<br/>document workflow.

# **User Data Protection**

#### APPLICATION DATA STORED IN THE XEROX CLOUD

User data related to the categories below are stored in cloud persistent storage.

- · Customized workflows explicitly saved by the user
- Workflow data, including intermediate processing files and output files, for workflow jobs that are
  processing or pending completion due to required user interaction.
- · Logs of completed and cancelled workflow jobs.

The following activities will trigger a delete event, for digital document files that meet the associated criteria.

- A delete occurs when the system detects intermediate processing files exist after a job has completed.
- A delete occurs for workflow output files, where the user has chosen to have an email sent with a download link, on the 7<sup>th</sup> day after the output file was created.

The balance of data stored in the cloud, that is unrelated to user Personally Identifiable Information, may be stored indefinitely for event reporting purposes.

#### APPLICATION DATA STORED IN THE ABBYY CLOUD OCR SERVICE

User documents that have been requested to be converted to a Microsoft<sup>®</sup> Office format are stored in cloud persistent storage until a delete event occurs.

User documents that need an OCR operation performed are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the converted document file.

 A delete occurs when the system detects that the document conversion job has completed and the converted document has been downloaded.

For detailed information on User Data Protection and Security for the Abbyy Cloud OCR Service, please follow this link: https://www.abbyy.com/cloud-ocr-sdk/legal/dpa/

#### APPLICATION DATA STORED IN THE ZAMZAR AUDIO SERVICE

User documents that have been requested to be converted to an Audio are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the converted audio file.

• A delete occurs when the system detects that the document conversion job has completed and the converted document has been downloaded.

For detailed information on User Data Protection and Security for the Zamzar Audio Service, please follow this link: https://developers.zamzar.com/dpa

#### APPLICATION DATA STORED IN THE GOOGLE VISION SERVICE

User handwritten documents that have been requested to be converted to text are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document file and the converted text file.

 A delete occurs when the system detects that the document conversion job has completed and the converted document has been downloaded.

For detailed information on User Data Protection and Security for the Google Vision Service, please follow this link: https://cloud.google.com/vision/docs/data-usage

#### APPLICATION DATA STORED IN THE GOOGLE DLP SERVICE

User documents that have been requested to be redacted are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files.

 A delete occurs when the system detects that the document redaction inspection job has completed and the locations of the redacted data fields, within the document, has been downloaded.

For detailed information on User Data Protection and Security for the Google DLP Service, please follow this link: https://cloud.google.com/dlp/docs/support/data-security

#### APPLICATION DATA STORED IN THE MICROSOFT TRANSLATOR SERVICE

User documents that have been requested to be translated to a different language are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the translated document file.

• A delete occurs when the system detects that the document translation job has completed and the translated document has been downloaded.

For detailed information on User Data Protection and Security for the Microsoft Translator Service, please follow this link: https://www.microsoft.com/en-us/translator/business/notrace/

#### APPLICATION DATA STORED IN THE SUMMARIZEBOT SERVICE

User documents that have been requested to be summarized are stored in cloud persistent storage until a delete event occurs.

The following activities will trigger a delete event, for the original digital document files and the summarized document file.

• A delete occurs when the system detects that the document summarization job has completed and the summarized document has been downloaded.

For detailed information on User Data Protection and Security for the SummarizeBot Service, please follow this link: https://www.summarizebot.com/privacy\_policy.html

#### APPLICATION DATA STORED IN THE RPOST RMAIL SERVICE

User data related to the categories below are stored in cloud persistent storage.

- · User documents that have been requested to be sent in a Registered and Encrypted email
- Sender's email address
- · Recipient's email address

The following activities will trigger a delete event, for the document files sent in the email. The documents are stored so that the recipient can download them from links contained in the email.

• A delete occurs on the 7<sup>th</sup> day after the Registered and Encrypted email has been sent.

The following activities will trigger a delete event, of the Sender's email address.

• A delete can only occur by sending a request to WorkflowCentralSupport@xerox.com to have the email address permanently removed from the RPost RMail system.

The following activities will trigger a delete event, of the Recipient's email address.

• A delete occurs on the 7<sup>th</sup> day after the Registered and Encrypted email has been sent.

For detailed information on User Data Protection and Security for the RPost RMail Service, please follow this link: https://rpost.com/legal-notices/privacy-notice/

#### LOCAL ENVIRONMENT

#### Application data transmitted

Application data related to the categories below are transmitted to/from the Xerox® Device.

- Account Login data
- App Access/Entitlement data
- Workflow Input, Output and Control Parameters
- Workflow Execution Status data
- Device Session data
- Device Job data

#### Application data stored on the Xerox® Device

The following app data is stored on the device, encrypted in Browser's internal storage, until the App is uninstalled from the device.

• Device's SNMP V2 public community string

#### **HTTP Cookies**

The ConnectKey App only stores non-tracking, technically necessary data required by Microsoft Azure.

# 4. Network Information

# Protocol, Ports and URLs

The following tables lists the protocol, ports and URLs used by the Web Browser or Xerox® ConnectKey app when executing within a customer's private network. All connections are outbound to Cloud hosted components.

#### WEB APPLICATION

Protocol	Transport and Port Value	Use	Component	URL
HTTPS using TLS	TCP 443	Authentication, Account Management, Access Management, Workflow Management, Subscription Entitlement	Browser to Workflow Central Platform UI & Services Interface	workflowcentral.services.xerox.com
HTTPS using TLS	TCP 443	Account Creation, Profile Modification, Device Management, Subscription Purchase and Management	Browser to App Gallery	appgallery.services.xerox.com
HTTPS using TLS	TCP 443	Facilitate Authentication Flow	Browser to Cloud Repository Middleware	cloudmiddleware.services.xerox.com
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Xerox DocuShare	docushare-go-prod.auth.us-east- 1.amazoncognito.com d3oia8etllorh5.cloudfront.net
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Microsoft	login.microsoftonline.com
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Google	accounts.google.com

Protocol	Transport and Port Value	Use	Component	URL
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Dropbox	www.dropbox.com
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Box	www.box.com

#### **XEROX®** CONNECTKEY APPLICATION

Protocol	Transport and Port Value	Use	Component	URL
HTTPS using TLS	TCP 443	Authentication, Account Management, Access Management, Workflow Management	ConnectKey App to Workflow Central Platform UI & Services Interface	workflowcentral.services.xerox.com
HTTPS using TLS	TCP 443	App Configuration	ConnectKey App to App Gallery	appgallery.services.xerox.com
HTTPS using TLS	TCP 443	Subscription Entitlement	ConnectKey App to App Gallery	entitlements-appgallery.services.xerox.com
HTTPS using TLS	TCP 443	Single Sign On (SSO)	ConnectKey App to SSO Manager	ssomanager.services.xerox.com
HTTPS using TLS	TCP 443	Facilitate Authentication Flow	Browser to Cloud Repository Middleware	cloudmiddleware.services.xerox.com
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Xerox DocuShare	docushare-go-prod.auth.us-east- 1.amazoncognito.com d3oia8etllorh5.cloudfront.net
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Microsoft	login.microsoftonline.com
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Google	accounts.google.com

Protocol	Transport and Port Value	Use	Component	URL
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Dropbox	www.dropbox.com
HTTPS using TLS	TCP 443	OAuth 2.0 Login Flow	Browser to Box	www.box.com

# 5. General Security Protection

# User Data Protection within the products

#### DOCUMENT AND FILE SECURITY

File content is protected during transmission by standard secure network protocols at the channel level. Since document source content may contain Personally Identifiable Information (PII) or other sensitive content, it is the responsibility of the user to handle the digital information in accordance with information protection best practices.

#### **HOSTING - MICROSOFT AZURE**

The cloud services are hosted on the Microsoft Azure Network. The Microsoft Azure Cloud Computing Platform operates in the Microsoft<sup>®</sup> Global Foundation Services (GFS) infrastructure. Azure safeguards customer data in the cloud and provides support for companies that are bound by extensive regulations regarding the use, transmission, and storage of customer data.

The Apps hosted in the cloud are scalable so that multiple instances may be spun up/down as needed to handle user demand. The service is hosted in Microsoft Azure data centers located in the US and Ireland. Users will be automatically routed to the closest server based on their geographical location.

For full details on Microsoft Azure's standards and certifications, please follow this link:

https://docs.microsoft.com/en-us/azure/compliance/

#### CLOUD STORAGE - MICROSOFT AZURE

All Azure Storage data is secured when at rest using AES-256 encryption. All Workflow Central Platform persistent data and documents held temporarily are contained in an Azure Storage account hosted in the Microsoft Azure data center located in Ireland.

For a full description, please follow these links:

#### **Azure Storage**

https://docs.microsoft.com/en-us/azure/storage/common/storage-service-encryption

#### XEROX® WORKPLACE SUITE/CLOUD AND SINGLE SIGN-ON SERVICES

The Xerox<sup>®</sup> ConnectKey App Single Sign-On feature integrates with the Xerox<sup>®</sup> Workplace Suite/Cloud authentication solution to store user access information for SSO-compatible Xerox Gallery Apps. After the user enters their storage service credentials the first time, the XWS/C solution acts a storage vault where the login information is securely stored.

All content to be stored in the vault is encrypted with AES 256 by the SSO Manager server before being given to the SSO vault that resides on the XWS/C solution. This ensures that the SSO vault can never view or use the contents being stored in the vault. Only the SSO Manager infrastructure knows how to decrypt the content stored in the vault and only the App knows how to use it.

The SSO Manager service manages the encryption key exchange required for secure communications and encrypts/decrypts the content saved in the vault.

For a full description, please review the Xerox<sup>®</sup> Workplace Suite/Cloud Information Assurance Disclosure: https://security.business.xerox.com/en-us/products/xerox-workplace-suite/

### User Data in transit

#### SECURE NETWORK COMMUNICATIONS

The web pages and app services that constitute the Xerox<sup>®</sup> Solutions are deployed to Microsoft Azure App Services. All web pages are accessed via HTTPS from a web browser. All communications are over HTTPS. Data is transmitted securely and is protected by TLS security for both upload and download. The default TLS version used is 1.2.

The Xerox<sup>®</sup> App requires the user to provide proper/valid credentials in order to gain access to the application's features. Authenticated users are allowed to access the features and data using HTTPS.

At launch, the apps must get an authentication/session token through the solution's authentication process. The access token acquired is used for that session of the app.

When using the Xerox<sup>®</sup> ConnectKey App installed on a Xerox<sup>®</sup> Device, in a customer environment that includes an Authentication solution (e.g., Xerox<sup>®</sup> Workplace Suite/Cloud) with Single Sign-On functionality enabled, the user can agree to have their user credentials securely stored and automatically applied during subsequent app launches.

All communication is done via HTTPS and the data is transmitted securely and is protected by TLS security. The default TLS version used is 1.2. Xerox App Gallery supplies a link to a Certificate Authority root certificate for validation with the cloud web service. It is the responsibility of the customer to install the certificate on their devices and to enable server certificate validation on the devices.

For more information related to Azure network security, please follow the link: https://docs.microsoft.com/en-us/azure/security/azure-network-security

#### XEROX WORKPLACE SUITE/CLOUD AND SINGLE SIGN-ON SERVICES

The Xerox<sup>®</sup> Workplace Suite/Cloud server accepts credential storage requests from the App via the SSO Manager service (the Xerox<sup>®</sup> App retrieves a vault key from the SSO Manager and uses it to retrieve login credentials from the XWS/C service). All communication is via HTTPS and the data is transmitted securely and is protected by TLS security. The default TLS version used is 1.2.

# 6. Additional Information & Resources

# Security @ Xerox

Xerox maintains an evergreen public web page that contains the latest security information pertaining to its products. Please see <a href="https://www.xerox.com/security">https://www.xerox.com/security</a>.

# Responses to Known Vulnerabilities

Xerox has created a document which details the Xerox Vulnerability Management and Disclosure Policy used in discovery and remediation of vulnerabilities in Xerox software and hardware. It can be downloaded from this page: https://www.xerox.com/information-security/information-security-articles-whitepapers/enus.html.

## **Additional Resources**

Security Resource	URL	
Frequently Asked Security Questions	https://www.xerox.com/en-us/information-security/frequently-asked-questions	
Bulletins, Advisories, and Security Updates	https://www.xerox.com/security	
Security News Archive	https://security.business.xerox.com/en-us/news/	

Table 2 Additional Resources