

**Unleashing Innovation:**  
**A Comprehensive  
Overview of  
EdgeXperience  
Capture Service**



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## **Disclaimer:**

This document sets out to describe the basic technical architecture for EdgeXperience Capture Service, a Software as a Service (SaaS) application used for digitizing documents. It also sets out to describe the basic security concepts for the system. It was compiled with the utmost care and to the best of our knowledge. However, please note that the information provided in this document is subject to change as technology evolves and new updates are released. Therefore, it is recommended to regularly refer to the official documentation and consult with our technical support team for the most up-to-date information regarding EdgeXperience Capture Service.

# Objectives

To give readers a comprehensive understanding of EdgeXperience Capture Service, this white paper delves deeply into its technological design. Through an analysis of the fundamental elements and features, our goal is to clarify the system's functioning and the safeguards put in place to guarantee a robust solution. In addition, the paper strives to emphasize EdgeXperience's user-centric advantages by showcasing its effects on user efficiency, productivity, and experience. We will examine particular characteristics that set it apart from competitors and highlight the real benefits for customers.

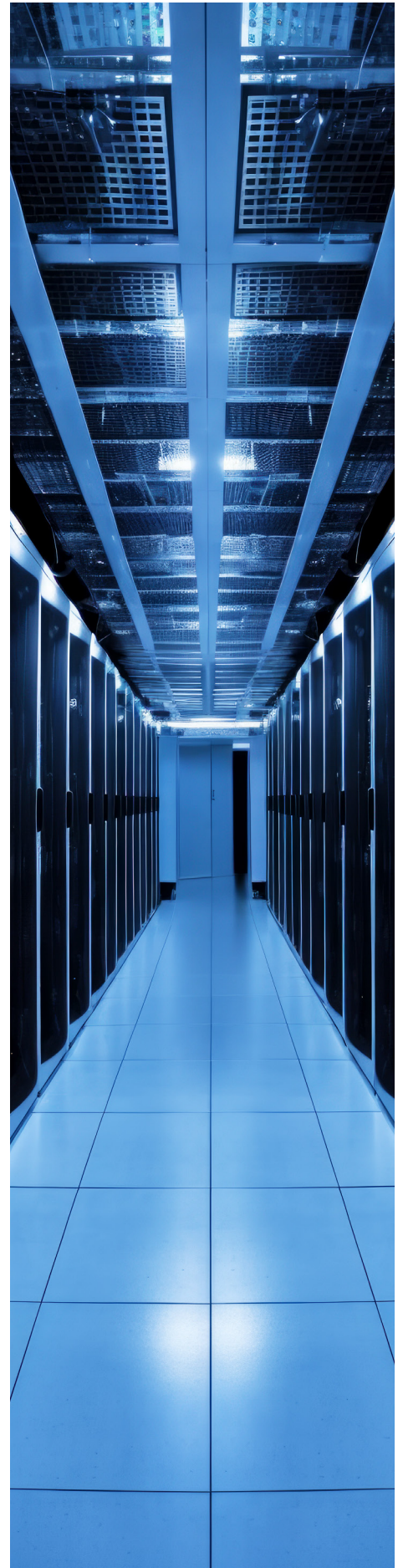
Furthermore, the white paper seeks to shed light on the layers of data security implemented within EdgeXperience. Through an examination of encryption protocols safeguarding data at rest and in transit, readers will gain insights into the meticulous measures taken to create a secure environment for sensitive information. The document will also describe the load balancing strategies employed by EdgeXperience, and provide guidance on how the system optimizes performance and distributes workloads effectively to meet user demands.

Administrators will find empowerment through information and guidance with respect to managing EdgeXperience. This section will explore administrative capabilities, tools for user management, access controls, and customization options, enhancing overall system control.

# Introduction

In the ever-evolving landscape of digital solutions, EdgeXperience Capture Service, or simply EdgeXperience, emerges as a beacon of innovation and efficiency. We are excited to present a comprehensive white paper that delves into the intricacies of our offering.

We will explore how EdgeXperience empowers users, ensures data security, and offers a seamless configuration for administrators. Together, let's unravel the layers of innovation woven into the very fabric of EdgeXperience Capture Service.



# User Benefits

Users obtain distinct benefits from the adoption of EdgeXperience. Increased efficiency, productivity, and resource savings enable organizations to focus on more critical duties while easily streamlining document digitization. Additionally, EdgeXperience coupled with the fi-7300NX, provides a user-friendly interface that simplifies the document capture process, reducing the need for extensive training and allowing users to quickly adapt to the system.



## Accessibility

Administrators and users can seamlessly access EdgeXperience from any device with an internet connection, fostering flexibility in work environments. Device agnosticism allows users to access EdgeXperience across various platforms, supporting a diverse range of devices. EdgeXperience is particularly relevant in remote work scenarios, as it fosters 24/7 availability, ensuring uninterrupted access to critical scanning workflows and information.



## Scalability

The scalability of EdgeXperience allows for the seamless integration of new devices and technologies into the EdgeXperience ecosystem, future-proofing the platform and ensuring its longevity. Additionally, the scalability of EdgeXperience enables organizations to easily expand their operations and accommodate growing user bases without sacrificing performance or stability.



## Automatic Updates

Automatic updates eliminate the need for manual installations, keeping users consistently equipped with the latest features. Furthermore, automatic updates ensure that any security vulnerabilities or bugs are promptly addressed, enhancing the overall reliability and security of the EdgeXperience platform. This streamlined process also saves time and effort for both users and IT administrators, allowing them to focus on other important tasks.



## Cost-Efficiency

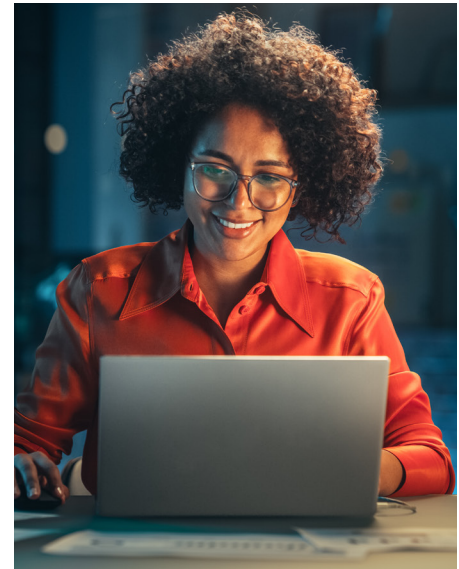
One major benefit is cost-effectiveness, as EdgeXperience has no up-front infrastructure requirements thanks to its subscription-based business model. With EdgeXperience, administrators can quickly construct tenants, which expedites setting up a distributed scanning environment. Businesses can recognize costs as operating expenditures when they use subscription services. This allows for better budget management and eliminates the need for large capital investments in hardware and software. Additionally, the scalability of EdgeXperience enables businesses to easily adjust their subscription levels based on their current needs, further optimizing cost-efficiency.

# Architecture: Overview

EdgeXperience Capture Service can be divided into two main pieces: the hosting environment and the EdgeXperience application.

## Hosting Environment

The hosting environment is responsible for providing the necessary infrastructure and resources for running the EdgeXperience. This includes the deployment of servers, network connectivity, and storage capabilities. Additionally, the hosting environment ensures the reliable and secure operation of EdgeXperience.



## EdgeXperience

EdgeXperience is the core component that handles data capture, processing, and storage. It is designed to seamlessly integrate with the fi-7300NX document scanner, providing a user-friendly interface for managing scanned documents. It utilizes advanced algorithms to enhance image quality, extract data, and organize files efficiently. With its cloud-based architecture, users can disseminate their scanned documents to a multitude of destinations, ensuring flexibility and convenience in document management. EdgeXperience ensures a robust and reliable data capture process while maintaining flexibility and scalability for future growth. EdgeXperience uses several containerized modules to deliver documents efficiently and securely.

### PaperStream IP TWAIN Driver

EdgeXperience utilizes PaperStream IP, a robust TWAIN driver, to efficiently process and manage scanned documents.

### Generic Connector API

EdgeXperience uses the Generic Connector RESTful API to interact with a variety of third-party systems and apps. The Generic Connector API allows EdgeXperience to seamlessly connect with external systems and applications, enabling smooth data exchange and integration. This ensures that EdgeXperience can adapt to various surroundings and integrate with existing technology.

### Database

EdgeXperience employs SQL Azure to store and manage data securely and reliably.

### Destination Connectors

EdgeXperience can now interact with over 20 different external systems and applications, providing flexible data exchange and integration options.



# Security: Overview

The architecture of EdgeXperience Capture Service was created to optimize data security. Furthermore, it makes use of Microsoft architecture to guarantee that only administrators have access to the features required to set up their respective environments. Encryption and access controls are two strong security methods that protect user data, while user-friendly interfaces improve usability overall.

## Ports to Support Administration and Image Delivery

The standard HTTPS port is used for communication within EdgeXperience. Regarding image delivery, EdgeXperience will make use of ports that are specified in the destination connector's configuration.

## SSL Certificates

SSL certificates ensure secure communication between the fi-7300NX document scanner and EdgeXperience by encrypting data transmission. This prevents unauthorized access and protects sensitive information from being intercepted or tampered with during transfer. Customers may use their own certificates that are generated by a certificate authority if they desire.

## Encryption

EdgeXperience's cypher suite requires at least TLS version 1.2. EdgeXperience uses AES encryption to transfer data from the fi-7300NX to its ultimate destination. This degree of encryption allows for safe data transmission while preventing unauthorized parties from easily deciphering it.

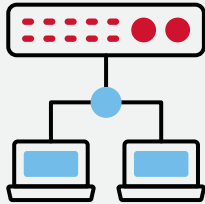
## User Authentication

In addition to the ability to leverage local user accounts, EdgeXperience supports enterprise identity services through an integration with Microsoft Entra ID.



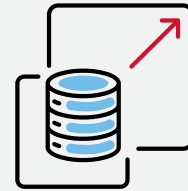
# Performance

In terms of performance, EdgeXperience Capture Service is designed to deliver fast and efficient data processing. It utilizes advanced algorithms and optimization techniques to ensure minimal latency and high throughput. Additionally, the system is scalable, allowing it to handle large volumes of data without compromising performance.



## Load Balancing

EdgeXperience Capture Service employs advanced load balancing techniques to distribute workloads evenly across servers, optimizing resource utilization and ensuring consistent performance. By intelligently managing traffic, the platform delivers responsive and reliable service to users under varying load conditions.



## Dynamic Scaling

With dynamic scaling capabilities, EdgeXperience automatically adjusts resources based on workload fluctuations, ensuring optimal performance and minimizing downtime. Whether experiencing spikes in user activity or increased data volumes, the platform scales resources dynamically to maintain responsiveness and efficiency.

# Centralized Management

EdgeXperience Capture Service uses centralized administration to simplify maintenance activities, streamline administrative operations, and save overhead. This section looks at how centralized maintenance capabilities allow administrators to handle configurations, updates, and system monitoring from a single interface, increasing operational efficiency and lowering administrative strain.

## Rapid Deployment

EdgeXperience leverages rapid tenant deployment. The platform can be up and running in a relatively short time, allowing organizations to quickly start capturing and analyzing data. This enables them to make informed decisions and drive business growth immediately.

## Web Interface

EdgeXperience offers a user-friendly web interface that allows for easy configuration and customization. This eliminates the need for complex coding or technical expertise, enabling organizations to quickly set up and modify their systems according to their specific requirements.

## IT Infrastructure Reduction

EdgeXperience significantly reduces the need for extensive IT infrastructure. By consolidating maintenance capabilities into a single interface, organizations can eliminate the need for multiple servers, hardware, and software licenses, leading to cost savings and simplified management. Additionally, this streamlined approach also reduces the complexity of IT infrastructure, making it easier to scale and adapt to changing business needs.

# Information for Administrators

EdgeXperience provides comprehensive information for administrators, giving them valuable insights into system performance, usage patterns, and potential issues. This data allows administrators to make informed decisions and optimize their IT infrastructure for maximum efficiency. Additionally, the platform offers advanced security features, ensuring that administrators have full control over user access and data protection.

## Systems Status

The **EdgeXperience status website** provides an overview of system functionality. This website delivers real-time information, allowing administrators to immediately react to any faults or disturbances.

## Support

EdgeXperience Capture Service provides support services to help administrators manage and optimize their tenants. The website includes user and administrator manuals, firmware upgrades for scanners, and frequently asked questions. It also displays notices and upgrades to the platform. Administrators have access to a variety of support options, including technical assistance and training materials, to ensure they have the tools and resources they need to maximize the value of EdgeXperience.

## Support Contact

For immediate support concerns, please contact our technical assistance center at **(800) 626-4686** or email [edgexperience.pfu-us@ml.ricoh.com](mailto:edgexperience.pfu-us@ml.ricoh.com).

## Conclusion

EdgeXperience Capture Service provides a solution to the problem of unfettered, unstructured data expansion, as well as overcoming the limits of traditional document imaging infrastructure. EdgeXperience enables administrators to centrally manage their tenants and perform all necessary data management and configuration operations on a single system. Integrating numerous advanced technologies onto a single platform, EdgeXperience results in a quick return on investment, lasting long-term productivity, and the realization of cloud initiatives. The technologies safeguard existing organizational investments while assisting administrators to adapt to new issues, permitting business leaders to address future change and development.



## About the Author

Paul Gramolini works for PFU America, Inc. as the Product Manager of Software and Technical Solutions.

He is a tech expert who focuses on how technical specifications, product goals, and consumer demands interact. Paul is dedicated to increasing productivity and transforming document management processes, ushering companies into the digital age with innovative solutions.

