Technical Whitepaper: Disaster Recovery Strategies for Using RightFax and etherFAX for Healthcare Providers and Payers.

Executive Summary

In the healthcare industry, faxing remains a critical method of communication due to its compliance with HIPAA regulations and widespread use across healthcare providers, payers, and pharmacies. Nearly 70% of healthcare providers and payers in the U.S. use fax as the interoperable communication standard for securely exchanging patient information and approving timely insurance reimbursements. RightFax and etherFAX are leading solutions for faxing in this sector, providing robust capabilities for both on-premises and hybrid-cloud faxing. As healthcare organizations increasingly adopt digital transformation initiatives, ensuring the continuity of fax services through disaster recovery (DR) strategies becomes essential.

This whitepaper outlines best practices and strategies for implementing effective disaster recovery with RightFax and etherFAX, helping healthcare organizations maintain business continuity, protect PHI, and comply with regulatory requirements during outages or catastrophic events.

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1. Introduction

1.1 Importance of Fax in Healthcare

Faxing remains embedded in healthcare due to its secure and legally accepted status under HIPAA. Critical communications such as prescriptions, patient records, referrals, and billing information are routinely transmitted via fax.

1.2 The Need for Disaster Recovery

Disasters — whether natural (e.g., hurricanes), technical (e.g., server crashes), or human-induced (e.g., cyberattacks) — can disrupt fax operations. For healthcare organizations, this can mean delays in patient care, financial loss, and regulatory penalties.

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2. Overview of RightFax and etherFAX

2.1 RightFax

RightFax is an enterprise fax server that integrates with email, desktop, and enterprise applications. It supports high-volume fax traffic and is often deployed on-premises.

2.2 etherFAX

etherFAX is a cloud-based fax transport solution that offloads the telephony infrastructure and connects securely via the internet. It enhances scalability, reliability, and simplifies DR strategies by removing dependency on traditional analog lines and PRI trunks.

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3. Disaster Recovery Strategy Components

3.1 Business Impact Analysis (BIA)

Identify critical fax-related workflows, determine Recovery Time Objectives (RTO), and Recovery Point Objectives (RPO).

3.2 Redundancy

- **RightFax**: Deploy redundant servers in a failover configuration using Microsoft Clustering or other HA tools such as Zerto or a RightFax Collective.
- **etherFAX**: Utilize its inherent cloud redundancy and geographically dispersed data centers that are always on and ready to send or receive a fax call.

3.3 Data Replication

- For RightFax, implement SQL Server replication or clustering for the fax database.
- Store fax images and metadata on SAN with real-time replication to a DR site.

3.4 Failover Planning

- **Active-Passive DR**: Use warm standby RightFax servers that sync with the primary instance.
- **Active-Active**: Less common, but possible in RightFax environments with advanced load balancing.
- etherFAX allows seamless failover with no on-prem telephony dependencies.

4. Implementation Guidelines

4.1 Hybrid DR Model (RightFax + etherFAX)

- Leverage RightFax for application integration (e.g., with CareRadius, Epic, NextGen, OnBase).
- Use etherFAX to handle the actual fax transmission, simplifying telephony DR.
- If the RightFax server fails, inbound faxes can be queued in etherFAX until service is restored.

4.2 Virtualization and Cloud Readiness

- Host RightFax servers in virtual environments (VMware/Hyper-V) for portability.
- Ensure cloud backups and snapshots are performed regularly.
- Consider DRaaS (Disaster Recovery as a Service) for virtual RightFax deployments.

4.3 Testing and Validation

- Conduct regular DR drills to validate failover procedures.
- Monitor fax delivery logs and system health to detect failures early.

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5. Security and Compliance Considerations

- Ensure all DR components (including cloud storage) are HIPAA compliant.
- Use TLS encryption for fax transmissions.
- Log and audit all fax activity to detect anomalies and support investigations.

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6. Case Study: Regional Health System

A regional healthcare provider using RightFax with etherFAX as the transmission engine experienced a ransomware attack. Their on-prem fax infrastructure was offline for over a week, but due to etherFAX's cloud buffering and failover features, inbound faxes were not lost and were delivered once the RightFax environment was restored. Regular DR drills and data replication minimized downtime and protected patient information.

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7. Conclusion

Faxing remains vital in healthcare, and ensuring its availability through robust DR strategies is non-negotiable. Combining the on-prem power of RightFax with the resiliency of etherFAX enables healthcare organizations to build a hybrid architecture that ensures business continuity, protects PHI, and maintains regulatory compliance.

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8. Recommendations

- Implement hybrid faxing (RightFax + etherFAX) for optimal resiliency.
- Use real-time replication for databases and fax image storage.
- Leverage virtualization for faster recovery and portability.
- Regularly test disaster recovery plans and update based on system changes.

About Ingenium Software:

Ingenium Software is a leading provider of fax server software and services for organizations who use fax to support mission critical business needs. Ingenium specializes in digital transformation of faxing systems of any size or scale. Our simple 4 step approach thru Discovery, Design, Development and Delivery has helped thousands of organizations shift their outdated faxing technology to the cloud and realize significant performance gains thru the use of Infrastructure as a Service and Generative AI.

About etherFAX:

EtherFAX is an Infrastructure as a Service platform for highly reliable faxing communications. The etherFAX network is comprised of thousands digital fax cards in the cloud and faxing applications that can integrate natively within RightFax, Office 365, Teams, Epic and other leading business applications. EtherFAX manages over 6 million fax numbers globally and securely transmits billions of fax documents every year. Their Secure Exchange Network (SEN) delivers fully encrypted documents in high resolution at internet speeds. With etherFAX, your customers will have an “always on” faxing experience.