



Voice Services

Thank you for your interest in FRII SureRing services. This document will outline the major considerations involved in a hosted PBX Voice over Internet Protocol (VoIP) implementation, as well as the installation process.

Wide Area Network (WAN)

This section outlines the different options for how your SureRing phone connects to FRII.

FRII Direct Connection vs. Public Internet

It is strongly recommended that VoIP services be deployed on a FRII provided connection. This enables FRII to provide Quality of Service (QoS) control and to effectively troubleshoot connectivity-related issues. VoIP services may be used on a non-FRII connection, but this requires that VoIP traffic traverse the public internet to reach our equipment. Such traffic is subject to the policies and capacity of the connectivity provider.

Enterprise Class Connectivity

FRII strongly recommends that VoIP services be deployed on enterprise class connectivity (T1 or greater) with customer premise equipment (such as a Cisco or EdgeMarc router) configured by FRII. This ensures the best possible quality and uptime for your VoIP service.

Non-enterprise Class Connectivity

In the absence of enterprise class connectivity, FRII recommends that VoIP services be deployed on a FRII-provided bridged DSL connection. This provides some limited QoS control and eliminates the issues common to consumer DSL modems. Other consumer class services like wireless and cable may be used, but compatibility tests should be made before deployment.

Local Area Network (LAN)

This section outlines the many elements of a network that impact VoIP.

Public vs. Private IPs

FRII supports the use of both public and private IP space. VoIP services deployed on private IP space will utilize a proxy server. While most configurations function correctly on private IP space, there may be some that are incompatible with this method. It is highly recommended that a compatibility test be made before deployment.



Firewalls

Due to its complexity and relative newness, most firewalls do not handle VoIP traffic well. Because of this, FRII is unable to guarantee the quality of VoIP behind any firewall other than a FRII-provided EdgeMarc device. Users who opt to install VoIP without a firewall are strongly encouraged to deploy the phones in a Network Address Translation (NAT) environment to provide some rudimentary security. VoIP security threats are largely theoretical at this point, but, like all technologies, there is always the possibility.

Network Segregation

Running voice and data over the same network can cause significant VoIP quality issues. FRII requires that VoIP deployments of six or more seats segregate voice and data networks, and **recommends** that deployments of five or fewer seats do the same. Network segregation can be accomplished physically by using entirely separate switches for voice and data networks, or logically by using separate VLANs over the same layer 2 infrastructure.

Network Hardware

FRII requires the use of Category 5 or 6 Ethernet cabling and 100BT/Gigabit Ethernet switching gear throughout the entire VoIP network. Installing switches and network equipment that support QoS (Quality of Service) is highly recommended, but not required.

Computer Requirements

A key part of the SureRing VoIP service is the ability to manage advanced phone features from a web interface. Any computers used for this purpose must meet the following requirements:

- Internet Explorer 5.0 or later
- Java Virtual Machine

FRII also offers the option to use a soft phone with the SureRing service. While this is not a recommended solution for customers in an office environment, it is a valuable service for people who take their office with them. Minimum system requirements for this type of setup are:

- Internet Explorer 5.0 or later
- Java Virtual Machine
- 700 MHz CPU
- 256 MB RAM
- 16-bit Full Duplex Sound Card
- Microphone and Speakers

Consulting

FRII VoIP services are not sold on a one-size fits all package. Every installation is customized to create the best solution for your particular needs. FRII will provide the equipment, installation, testing, and training necessary to ensure your best possible voice network.



What to Expect

This section outlines what to expect once you order your new VoIP system.

Timeline

New orders take 2-4 weeks to install after the contract is signed. Our Provisioning Department will work closely with you from contract signing to installation to ensure that the setup goes as smoothly as possible.

If your order includes equipment, please be aware that it takes time to receive, configure, and ship. All equipment will be shipped via USPS or UPS Ground, unless otherwise requested. Please expect 3-5 business days for delivery. Shipping charges will appear on your next invoice.

Directory Listings

A free listing in both the white pages and Directory Assistance is included with most SureRing services (excluding toll-free and specialty numbers). You may update the information associated with your phone number at any time by visiting our web page. Log into your myFRII account (<http://www.myfrii.com/>) and click the link next to the phone number in question. From there you will have the option to modify the directory listing.

To list a toll-free number, or to list your number in the yellow pages, please contact Dex Media at 877-448-4449 or <http://www.dexonline.com>.

Line Number Port

If you have decided to keep your existing phone number, our provisioning team will be in contact with you to coordinate the Line Number Port (LNP). The LNP process takes approximately 3-5 weeks to complete and has four major steps:

- FRII will provide you with a Line Number Port Authorization form that you will need to fill out and return to begin the process. Some port requests require a copy of your latest phone bill so make sure you have a copy handy.
- FRII will submit the completed Line Number Port Authorization paperwork to our vendor who will work with your current phone provider to begin the porting of your number(s). You will receive an email with the details on the expected timeline for completion. If any additional paperwork or information is needed to process the port order, a member of our provisioning team will contact you. At this point you will need to contact your current phone company and have them forward your phone to a temporary number that will be provided to you as part of the LNP process.
- When a port date has been scheduled, you will receive a follow-up email. Approximately 15-30 minutes downtime can be expected during the port. The port will happen automatically, and requires no interaction from you or FRII staff.
- Once the LNP is complete, it will be tested. We test ported numbers as thoroughly as possible, but we strongly recommend that you verify the number's behavior as well. Try making various types of calls to and from the newly ported number, including local, long-distance, and toll-free. If you experience any problems, contact your provisioning representative immediately.
- Finally, you must cancel your service with your old provider. This does not happen automatically. If you have any advertising costs associated with the number(s) you are porting (yellow pages ads, etc.), these items must be moved onto a separate invoice that will bill directly to you from the provider..



911 Information

All SureRing phone numbers have the capability of three types of 911 emergency services.

Traditional 911 – This allows you to dial 911 and reach a dispatch facility in the event of an emergency. The facility you reach depends on the number you are dialing from and the area you are in, and may need to transfer you if you are outside their dispatch area.

E911 – Where E911 capabilities are available, calls to 911 are routed to specific dispatch facilities based on the address information you provide to FRII when you first setup your service. This information is delivered with your call to help emergency officials quickly locate you and dispatch the necessary personnel. FRII may charge an E911 access fee to cover its cost of interconnecting to the E911 system.

It is essential that you keep your service address up to date at all times. Instructions for doing so can be found at our website (<http://www.myfrii.com/>). Note that updating this information also updates Reverse 911.

Reverse 911 – Reverse 911 is a tool that allows emergency service providers to deliver emergency notifications via your phone service to a specific geographic location. It uses information from a combination of databases and GIS mapping technologies to pinpoint notification groups.

NOTE: “Life Line” refers to the phone line provided to the home or office by the traditional phone company. Power is sent through the traditional phone line so the phone will work even when utility power is offline. **SureRing VoIP services do not provide “Life Line” capability. FRII recommends that you maintain a land line at your location for use in these situations. This can be accomplished by maintaining a land line fax service.**

Auto-Attendant/Queue Greetings

If your VoIP services include an Auto-Attendant or Call Center Queue, you may record your own personalized greeting. This can be done directly from a phone or with a microphone connected to your computer. If you prefer, FRII can record these greetings and messages for you for an additional fee.

Training and Documentation

An extensive documentation collection is available to help you make the most of your SureRing service including User Guides for phones, Voicemail setup, etc. These can be found at:

<http://surering.com/documentation/>

Additionally, troubleshooting information for your SureRing service is available in the FRII knowledgebase, located at: <http://frii.com/kb/>

FRII also provides onsite and webinar VoIP training at both the user and administrative levels upon request. To inquire about pricing or to schedule a session, please contact your sales representative.



Replacement Equipment

FRII provides a 1 year warranty on most equipment that we sell. In the unlikely event that one of your phones fails, it can be returned to FRII by following our Equipment Return process at http://frii.com/support/equipment_returns.html. Replacements usually take 5-10 business days to arrive. As an alternative, you may choose to pre-purchase one or more extra phones to store at your location. If a phone needs to be replaced, our Provisioning team can remotely configure one of your spare phones to take the broken device's place.