IRLP & EchoLink Made Easy Over The Air Learning

\\$3XPR

Today's agenda

- What is IRLP?
- How to use IRLP?
- What is EchoLink?
- How to configure & use EchoLink?
- Who can you talk to on IRLP & EchoLink?



What is IRLP?

- IRLP = Internet Radio Linking Project
- Started in 1997 by David Cameron, VE7LTD
- Allows amateur radio systems to be linked together using the Internet
- Nearly 3,000 IRLP nodes around the world





IRLP Terminology

• Node

- A computer that allows access to the IRLP network
- Example: a telephone

Reflector

- A computer that allows multiple nodes to communicate with one another at the same time
- Reflectors can support 9 simultaneous conversations
- Example: a telephone conference bridge



IRLP Node to Node Communications





IRLP Reflector Communications



How to Use IRLP?

- Find a nearby IRLP node
- Obtain permission to use it and the required access codes
- Review the IRLP usage guidelines
- Start making calls!





Finding a Nearby IRLP Node

- Using a PC or Mac
 - Go to Status.irlp.net
 - Search Repeaterbook.com
- Using a Smartphone
 Download an app
 - IRLP*me
 - IRLP Finder





Obtaining Access to an IRLP Node

- Obtain Permission from the node owner
 - Node owners can be found on status.irlp.net under the node info
- Obtain the Required Access Code
 - Many nodes are open and require no special access code





Review the IRLP Usage Guidelines

- The Basics
 - **IDENTIFY** before and after using IRLP an node
 - **PAUSE** after keying and between transmissions
 - **AVOID** rag chewing and calling CQ

• Find out more @ IRLP.NET





Making IRLP Calls

- Connect to another IRLP Node
 - Enter "ACCESS CODE" + "IRLP NODE #"
- Disconnect from an IRLP Node
 - Enter "73"
- Example
 - You want to connect to a net on IRLP Reflector 9558 using IRLP node 2101. The Access code for node 2101 is 563.
 - **Connect**: Enter "5639558"
 - **Disconnect**: Enter "73"





What is EchoLink?

- Created by Jonathan Taylor, K1FRD
- Allows amateur radio systems & operators to communicate using the Internet



• Over 200,000 EchoLink users around the world



EchoLink Terminology

- Users
 - Typical EchoLink users
- Links
 - EchoLink connected to a simplex radio
- Repeater
 - EchoLink connected to a repeater

Conference

- Allow multiple EchoLink users to communicate simultaneously, like an IRLP reflector
- Usually oriented around a specific topic, region or language
- Allows only 1 conversation at a time



EchoLink Conference Communications



How to set-up and use EchoLink?

- Download & install EchoLink for your PC, Mac or Smartphone
- 2. Provide proof if license to EchoLink
- 3. Configure EchoLink with your call sign & details
- 4. Start making calls!





Downloading EchoLink







Setup Wizard EchoLink has several settings that help optimize the software for the type of Internet connection you are using. Please choose the item that best describes the type of connection you have: Select Dial-up (modem) connection, 56k or below • DSL, cable, ISDN, or other (above 56k) < Back Next > Cancel Help



Setup Wizard			
	Please enter the followi		
~~~	Callsign: VA3XPI	R	
5 5	Password:	(If you don't already have one, choose one,)	Complete
2729	First Name: Don		All
230	Location: Toronto	), ON	
	Email Addr: VA3XPI	R@gmail.com	
	8 		
	(Back Next>	Cancel Help	



System Setup		
My Station Servers Proxy Timing Audio Performance		
C Use Specific Proxy:		
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063 * HC6EP 29 * 066 KB8UVN #57 067 KB8UVN #56		
OK Cancel Help		



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You can get IP settings assigned automatically if your network supports his capability. Otherwise, you need to ask your network administrator for he appropriate IP settings.	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically	Obtain an IP address automatically
O Use the following IP address:	● Use the following IP address:
IP address:	IP address: 192 . 168 . 1 . 25
Subnet mask:	Subnet mask: 255 . 255 . 255 . 0
Default gateway:	Default gateway: 192 . 168 . 1 . 1
Obtain DNS server address automatically	O Obtain DNS severadress automatically
O Use the following DNS server addresses:	O Use the follow DNS server addresses:
Preferred DNS server:	Preferrer server: 206 . 248 . 154 . 22
Alternate DNS server:	Alter ONS server: 206 . 248 . 154 . 170
Advanced	Advanced

#### Static IP Address of your EchoLink PC



#### Firewall Configuration for IRLP and EchoLink

ietup	Wireless	Services	Security	Access Res	trictions	NAT / QoS	Administratio
ort For	warding	Port Range Fo	orwarding	Port Triggeri	ng UPnP	DMZ	Qo5
Port R	ange Forw	ard					
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		20100010000					
IRLP1		2074	2093	UDP 😒	192.16	58.1.25	
IRLP1 IRLP2		2074 15425	2093 15427	UDP 💌	192.16 192.16	58.1.25 58.1.25	
IRLP1 IRLP2 EchoLin	nk1	2074 15425 5198	2093 15427 5199	UDP 💌 TCP 💌 UDP 💌	192.16 192.16 192.16	58.1.25 58.1.25 58.1.25	

#### Static IP Address of your EchoLink PC



## **Provide Proof of License**

- Scan your Amateur Radio Operator Certificate, or equivalent into an supported image type
- Validate your information on the EchoLink website
- Submit your scanned Operator Certificate
- Validation should occur within a couple of days





#### Making EchoLink Calls using a Smartphone

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		0 050 Text Stations Favorites Settings		OSO Text Stations Favorites Settings		1 O Find Attings





## Making EchoLink Calls using a Mac





#### Making EchoLink Calls using a PC



3. PTT = Space Bar



# Who Can You Talk To?

- Club or Social Nets
- Special Interest Nets
  - Tech Nets
  - AMSAT Nets
  - Astronomy Nets
- Events
  - JOTA
  - Balloon launches
- Check VA3XPR Net Calendar





#### And Finally...



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#### **Questions**?

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