One Number System (ONS)

William Cobb
VP, Network Engineering
CSDVRS
29 April 2008



ONS Executive Overview

The ONS goals are to provide people who are Deaf and hard of hearing:

- 10 digit phone number that <u>anyone</u> can call
- Allow <u>anyone</u> to call you on your video phone from any video device...simply by registering with ONS
- E9-1-1 from <u>any and all</u> provider...safety
- Can be implemented in 2008 with all installed equipment
- Freedom of choice...you get your number...then you decide what provider
- Fair and balance competition...all providers have minimal investment



ONS features

Neutral Central Numbering Database

Acquires, distributes and maintains telephone numbers

Maintains correlation between phone and user IP address

Establishes and maintains user location information

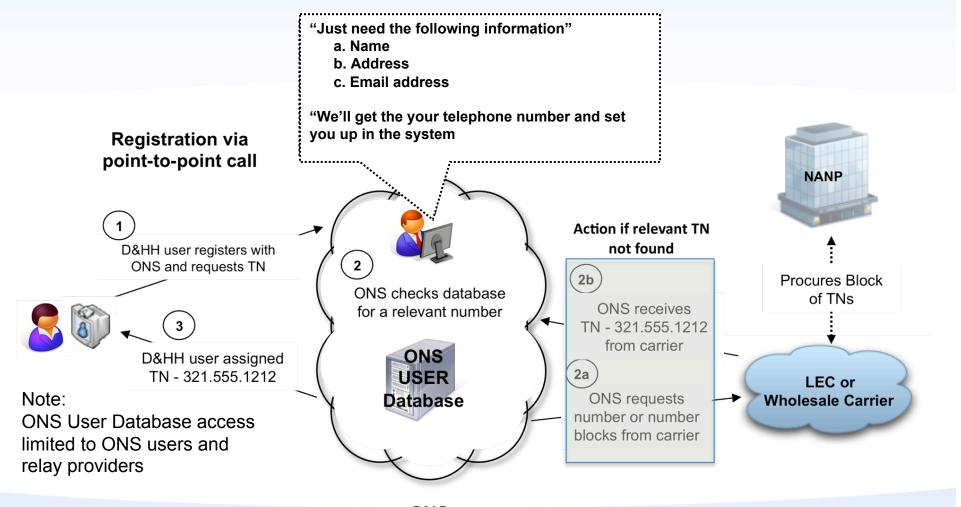
One system for all providers

Built using existing proven technologies

Bridging system...supports present technologies with flexibility for future innovations

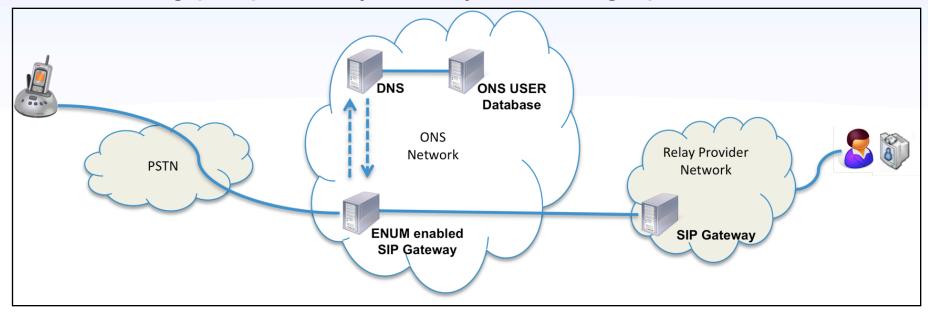


Getting your number...no pressure





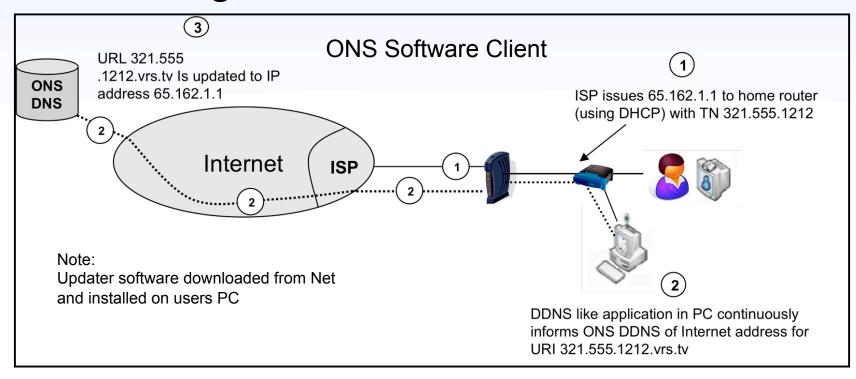
Hearing people call you on your 10 digit phone number



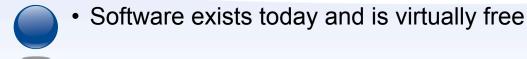
- ONS will operate a VoIP network for routing of PSTN calls to relay providers
- Providers true number portability
- Foundation for migration to SIP technologies
- Anyone can call you using your number...VoIP does it millions of times a day



Matching Phone Number to IP Address



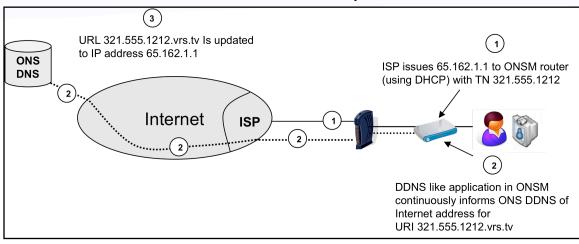
- Simple configuration...software tested and proven...Windows and MAC
- DynDNS System has over 2.5 million users, 100s M queries & updates daily
- Over 90% of today's users...do it this way
- Interim step...future phones will have this built in



CSDVRS

Matching Phone Number to IP Address

ONSM – Router with Updater Client



- Consumer routers
- User setup
- Remote assistance
- Cost effective < \$17
- Could distribute hardware through retail stores
 - Best Buy
 - Staples
 - Office Depot
 - Amazon

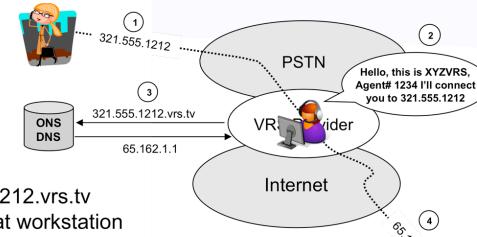
Only required if there is **NO** computer in the home

CSDVRS has installed over 5000 customers with software...no hardware needed



VRS Call from hearing person

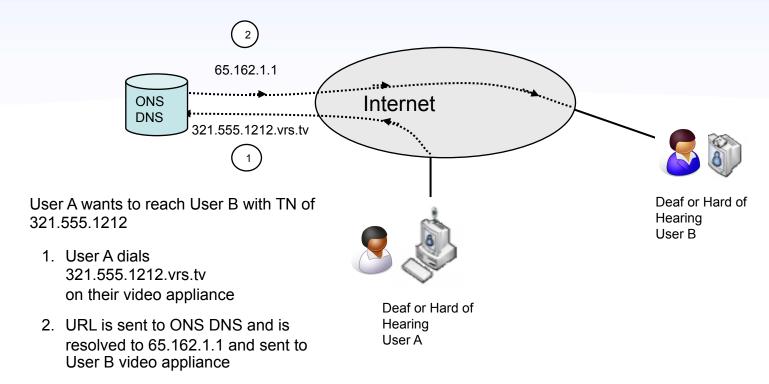
- 1. Hearing person dials 321.555.1212
- Video Interpreter
 (VI) with VRS provider answers call and has TN of deaf person



- 3. VI enters URL for 321-555-1212.vrs.tv into video client application at workstation
- 4. URL is sent to ONS DNS and resolved to 65.162.1.1. and is connected to the user's videophone across the Internet
- System available to all providers
- This is a basic DNS query...same as today...no new systems



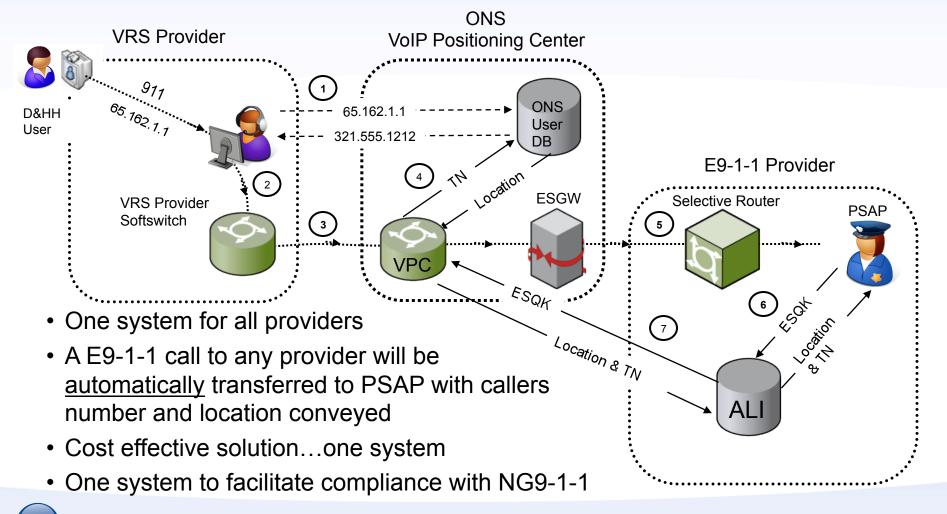
Point-to-Point Call with 321.555.1212



 USER A or B could be a hearing sibling or parent fluent in ASL using any compatible video equipment or software acquired anywhere...no relay provider required



ONS E9-1-1 System



ONS Advantages

- Neutral numbering administration...marketing not tied to numbering...video equipment not tied to services
- Universal E9-1-1 access...automatic call transfer by any provider...today...highly available E9-1-1...future
- Cost effective solution for industry and TRS fund: single system rather than 10-15 databases...levels playing field for providers
- Open system for all...calling with friends, family and business supported...both VRS and point-to-point



ONS Advantages

- Highly secure system that protects private location information: data encrypted – strict guidelines for provider access
- Ensures consistency in methodology and service quality: databases updated regardless of provider circumstances
- Provides for full numbering portability
- Supports existing network and evolution to newer communication protocols and technologies
- Minimizes slamming and fraud

