If you only read one thing in this Kit- **READ THIS!!!**

This brief overview will give you a high-level understanding of the basics of Vonage's VoIP E9-1-1 deployment plan.

Vonage is in the process of a nationwide rollout of E9-1-1 service. We're busy working with state and local public safety officials and 9-1-1 System Service Providers (SSPs) to ensure full connection and the integration of VoIP elements into the Selective Router (SR) along with the routing of Automatic Location Information (ALI) and Automatic Number Identification (ANI) through industry leading VoIP Position Centers (VPCs) that will route E9-1-1 calls to the appropriate PSAP.

Vonage has committed to deploying E9-1-1 within the 120-day timeframe mandated by the FCC order. To do so, we need your help! Completing and recording the tasks on this checklist will help Vonage complete the deployment of VoIP E9-1-1 across our footprint. We will follow up to discuss your deployment and gather this information from you within the next 3 weeks.

Please find a PSAP deployment checklist for your review and use as we know your schedule is full.

VoIP E9-1-1 Deployment Checklist

Provide PSAP information:

To ensure all of our data about your PSAP is correct, we will ask you to verify and provide the following information:

- Your PSAP's Name:
- PSAP FCC ID: (Please refer to the FCC's PSAP Registry for information regarding the assignment of FCC ID):
- Name of PSAP Point of Contact for VoIP E9-1-1:
- Email Address:
- Phone Number:
- Serving 9-1-1 System Service Provider, Local Exchange Carrier and S/R:
- Serving ALI database:

Contact your 9-1-1 System Service Provider to request a VoIP MSAG:

Vonage requires the use of a VoIP MSAG, which will allow us to build VoIP Shell Records with associated ESQKs for your PSAP in the ALI database. These shell records will be used to deliver VoIP caller location information to your PSAP much the same way as wireless call processing.

Below is an example of the format for this VoIP MSAG:

Street Name: VOIP 9-1-1 Caller
Community: *(your PSAP name)*
ESN: _____

By initiating this request now you will help ensure that there will be no delay in the VoIP E9-1-1 deployment in your area. We recommend that you request a MSAG shell record from your SSP within **5 business days** of receiving this kit so that it will be available in electronic format when we contact you.

Bellow is an example of the request form you'll use to request a VoIP MSAG. Check with your provider for the appropriate forms and process for your area.

BELLSOUTH **E911 MSAG Ledger**

Date | County/City/Parish | Serial Number

Telephone Company Name | Authorized By

Purpose Of Ledger ► ☐ Insert _____ ☐ Change _____ ☐ Delete _____

Comments

Existing MSAG Entry

Directional | Street Name | State

Low Range	High Range	O/E/B	Community	ESN	*Exchange

Desired MSAG Entry

Directional | Street Name | State

Low Range	High Range	O/E/B	Community	ESN	*Exchange

For SOC Use ► (Indicate Dates) | Received | Input To MSAG | Input To PREMIS | Referred To NBEC (If Appropriate) | Returned To County/City/Parish | Clerk's Initials

For NBEC Use ► (Indicate Dates) | Received | Referred To SOC | Clerk's Initials

*Input Not Required By County/City/Parish

For more information visit www.vonage.com/PSAPcenter

Verify single Emergency Service Number (ESN) for VoIP:

Vonage will be using ESN for routing purposes and only a single ESN per PSAP is needed. This ESN can be the same that is currently used for Wireless E9-1-1. If you plan on making any changes to or providing other types of ESNs, please be prepared to discuss this with a Vonage deployment professional when contacted.

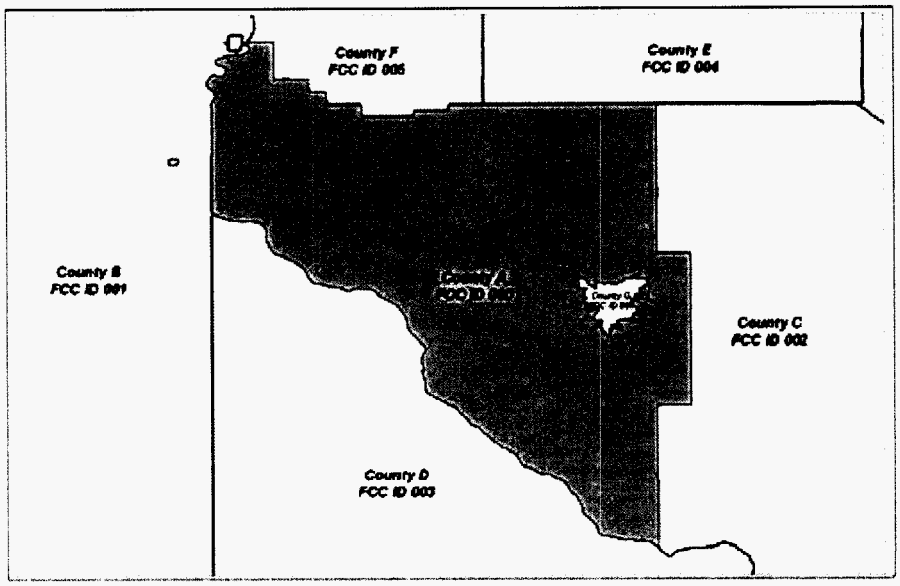
VoIP Nomadic PSAP Boundary Verification:

For VoIP E9-1-1 call routing, Vonage would like to use the same PSAP boundaries used for wireless call routing. A simple description of the present boundary (most fall into county, city, or minor civil district boundary) should be sufficient to verify that the boundary we have on file is current.

If you are going to be making any changes to your PSAP boundary for VoIP we will need the following information from you in order to build a new PSAP boundary in our database.

- A shape file (consisting of at least a .dbf file, a .shp file and a .sbn file).
- Projection – The projection of the data (Stateplane, UTM, etc)
- Datum – (NAD83, NAD27, etc)
- A written description of the contents of the shape file.

Below is an example of the PSAP boundary that will be created from the information you provide. PSAP Boundaries allow us to accurately route calls to the appropriate PSAPs based on caller's address.



For more information visit www.vonage.com/PSAPcenter

Provide your PSAP's 10-digit Conditional Routing Number (CRN):

Please provide us with a 10-digit CRN for alternative call delivery to your PSAP to be used in the event the system is unable to deliver the call according to the route established by the native 9-1-1 network. This number will be used for this purpose only, and NOT for the general delivery of E9-1-1 calls.

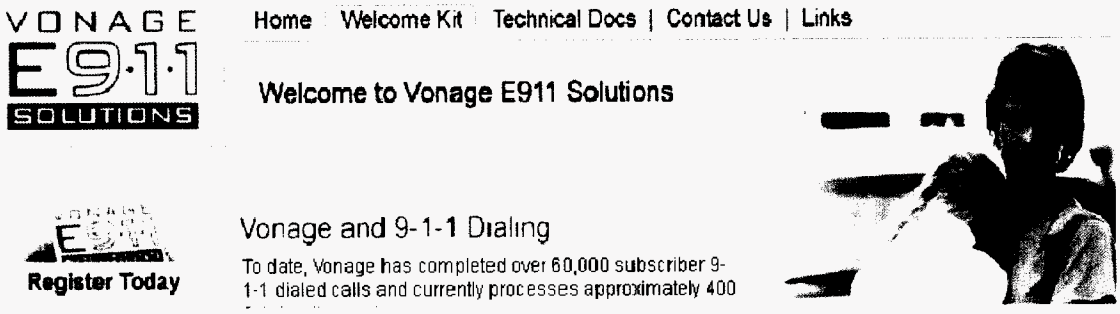
Review the rest of this kit and check out our Website!

To ensure we are able to provide our PSAP partners with the most up-to-date information about Vonage and E9-1-1, we've created a website for PSAPs.

You'll find our website and the following information at this address:

www.vonage.com/PSAPcenter

- Learn more about Vonage and our E9-1-1 plans;
- Contact information;
- FAQs (Frequently Asked Questions);
- Useful VoIP links;
- Electronic copy of our VoIP PSAP Kit;
- White papers, resources and helpful tips;
- ...and more.



August 22, 2005

Contact name
Title
PSAP/Jurisdiction Name
Address 1
Address 2

Subject: Vonage E9-1-1 PSAP Deployment Kit

Dear (Contact Name):

On behalf of our customers and partners, Vonage is pleased to share some exciting new developments with regard to our 9-1-1 service. In the upcoming weeks and months, Vonage will be upgrading our current 9-1-1 capabilities by rolling out Enhanced 9-1-1 (E9-1-1) across our footprint. To meet this enormous and formidable undertaking, we are reaching out to the public safety community to inform you of our plans, include you in our progress and solidify our alliance with your community.

Vonage's E9-1-1 implementation design complies with the letter and spirit of the recent Federal Communications Commission (FCC) E9-1-1 Report and Order (Number 05-116). As such, the Order requires that providers of two-way interconnect Voice over Internet Protocol (VoIP) services deliver E9-1-1 information– Automatic Number Identification (ANI) and Automatic Location Information (ALI) –by routing calls to a Public Safety Answering Point (PSAP) through a native 9-1-1 network.

To help guide you through the FCC mandated 120-day implementation process, provided herein is the *Vonage E9-1-1 PSAP Deployment Kit* for your reference and review. The kit contains useful information about Vonage, how VoIP E9-1-1 works and other relevant information.

Enclosed, please find:

- Information about Vonage and E9-1-1
- VoIP FAQ's
- Vonage VoIP E9-1-1 Deployment Checklist
- VoIP Glossary
- VoIP Facts and Contacts specific to your state

To assist Vonage's E9-1-1 deployment we have selected a team of seasoned E9-1-1 professionals to support our outreach. Within three weeks of receipt of this letter, you will be contacted to collect relevant data and answer any questions you might have.

Your participation is vitally important to this deployment effort and we look forward to building a partnership with you to complete this awesome task.

Vonage shares your goals to provide the best possible VoIP E9-1-1 service and will work hard along side you to make this goal a reality.

Thank you for your time and 9-1-1 leadership.

Sincerely,

Vonage E9-1-1 Implementation Team
www.vonage.com/PSAPcenter

VONAGE

E9·1·1

SOLUTIONS

For more information visit www.vonage.com/PSAPcenter

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About Vonage

Vonage is the leading provider of broadband phone service. Vonage subscribers have access to an affordable alternative to traditional telephone service for everyday consumers and small business calling. With its nomadic features and capabilities, the Vonage footprint encompasses more than 125 North American Markets and its subscribers make more than 5 million calls per week. Vonage is headquartered in Edison, New Jersey.

The following is an overview of Vonage's past, present and future 9-1-1 capabilities and deployment activities.

Vonage and Enhanced 9-1-1

Vonage is in the process of a nationwide rollout of E9-1-1 service. As an important step to providing E9-1-1, Vonage is working with 9-1-1 System Service Providers (SSPs) to ensure full connection and the integration of VoIP elements into the Selective Router (SR) along with the routing of Automatic Location Information (ALI) and Automatic Number Identification (ANI) through industry leading VoIP Position Centers (VPCs) that will route E9-1-1 calls to the appropriate PSAP.

As Vonage rolls out full i2 E9-1-1 capabilities, the PSAP community is asked to review the Vonage checklist to avoid potential delays in receiving VoIP calls through the native 9-1-1 system.

Vonage and "911 Dialing"

To date, Vonage has completed over 60,000 subscriber 9-1-1 dialed calls and processes approximately 400 9-1-1 calls per day. With the exception of a few localities these calls have been processed under NENA i1 standards.

In compliance with the Federal Communications Commission (FCC) Report and Order 05-116, Vonage has notified customers that their address and phone number are not automatically provided to the PSAP and that a customer must be prepared to provide this information when calling 9-1-1.

Under previous conditions and to be phased out under FCC Order and Vonage's rollout, Vonage implemented 911 Dialing as a NENA i1-compliant, temporary solution to provide some level of 9-1-1 to subscribers as quickly as possible. Under this temporary solution, Vonage subscribers that have activated 911 Dialing provide Vonage with a self-provisioned address to route 9-1-1 calls to a 10-digit emergency access number at the Public Safety Answering Point (PSAP).

Vonage 9-1-1 Subscriber Enforcement and Customer Notification

To encourage Vonage customers to provide complete subscriber information for emergency calling, new Vonage subscribers are unable to sign up for service unless they provide complete emergency location information as well as acknowledge current Vonage 9-1-1 Dialing capabilities.

To further ensure that all Vonage subscribers understand their 9-1-1 service capabilities, Vonage launched an aggressive effort to contact each and every customer through multiple communication channels, requiring them to visit the Vonage website, read and acknowledge 9-1-1 disclosures. While a large majority of subscribers have done so, as a last resort Vonage has made provisions to temporarily disable calling services until a 9-1-1 disclosure is read and acknowledged. In the event such a user's service is disabled and the user dials 9-1-1, Vonage's "Safety-Net" 9-1-1 Call Center will process the call.

Vonage is committed to 9-1-1 and believes customer education and outreach is a vital aspect of our 9-1-1 rollout. As Vonage makes future advancements in 9-1-1 capabilities, and service, customer education and outreach will continue to be a top priority.

Vonage "Safety-Net" 9-1-1 Call Center

In the event a customer cannot connect directly to 9-1-1 through Vonage's 9-1-1 Dialing or 10-digit emergency routing, or has an address that is not valid or not provisioned, calls are sent to a national 24x7x365 Vonage Safety-Net Call Center for re-routing and to a proper emergency authority.

Using call center methods adopted by telematics providers and alarm companies, a Vonage Safety Net 9-1-1 call is received by APCO-certified agents who collect the caller's call back number, address and other relevant emergency information and transfer the call to the nearest PSAP or first responder available.

Successful E9-1-1 Deployments

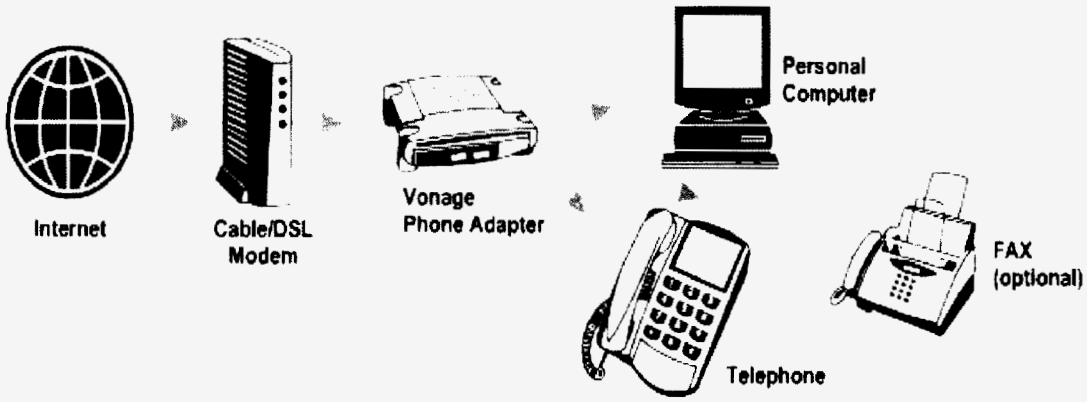
Vonage presently offers E9-1-1 in New York City and Rhode Island and plans to complete deployment of the Vonage i2 solution to all PSAPs in the Vonage footprint.

VoIP E9-1-1 Frequently Asked Questions for PSAPs

The following are frequently asked questions about VoIP and E9-1-1 deployments. Additional questions and answers can be found at: www.vonage.com/PSAPcenter.

What is VoIP?

Voice over Internet Protocol (VoIP) is a technology that allows people to place local and long-distance calls over the Internet. VoIP providers convert voice calls into packets of data that zip through a high-speed Internet connection just like email. When received, the data is re-packeted for an end-user application like a traditional phone call.



VoIP service is expected to grow rapidly in the coming years as it allows a consumer the option to move his or her phone from one location to another as long as broadband connectivity is available.

The technology is also attractive to customers because they can typically receive local and long-distance phone service and other telephony features such as voice mail, caller identification and call waiting for far less than they pay for traditional wired phone service. Utilizing information technology capabilities and convergence, VoIP also allows for a number of additional features not available on traditional wired phone service.

What has the Federal Communications Commission (FCC) said about VoIP E9-1-1 Services?

Given the far reaching capabilities, opportunity for greater consumer choice, and the numerous applications being developed for VoIP, the FCC has been generally supportive of the technology and its potential in the communications marketplace. Supporting future developments in VoIP, the FCC has issued several Reports and Orders that recognize federal authority over VoIP, including emergency communications response capabilities.

On May 19, 2005, the FCC released Report and Order 05-116, which established rules for implementing VoIP E9-1-1 service and established VoIP provider obligations in deploying emergency services. The Order requires two-way interconnected VoIP providers to deploy E9-1-1 service using the native 9-1-1 network to all Enhanced Public

Safety Answering Points (PSAPs) by November 29, 2005 (120 days after the effective date of the Order).

The entire Order, including Commission statements, can be viewed at the FCC's website at: www.fcc.gov/voip

Do I have to submit a request to a VoIP provider to receive E9-1-1 calls in my PSAP?

As stated in the FCC Order, PSAPs are not required to request E9-1-1 service from VoIP providers; rather it is the obligation of the provider to interconnect to the native 9-1-1 network. Vonage is proactively working with PSAPs and other 9-1-1 entities to complete the deployment of E9-1-1 service where Vonage service is available.

A Vonage deployment professional will follow up to begin deployment activities within 3 weeks of receipt of this kit. Please refer to the attached deployment checklist for further information on how your PSAP can assist Vonage in the deployment of E9-1-1.

Will Vonage pay E9-1-1 surcharges?

Vonage is an active 9-1-1 supporter and is committed to contributing to the greater safety and security of our subscribers and the thousands of communities we serve. In achieving emergency calling capabilities Vonage further recognizes the 9-1-1 partnership of States, public safety agencies and E9-1-1 systems.

Because the Vonage solution is nomadic (unlike current Cable, DSL or existing ILEC wireline capabilities that pay local surcharges) and the nature of the connectivity to the native 9-1-1 system is often associated with wireless methods for E9-1-1 deployment including Selective Routing (SR), E9-1-1 steering of Automatic Location Information (ALI) and Automatic Number Identification (ANI) information including pseudo- ANI (p-ANI access), the service most closely resembles a wireless E9-1-1 deployment and phone call.

These unique characteristics as well as Vonage's commitment and the FCC's Order for ubiquitous E9-1-1 service require a uniform E9-1-1 surcharge for our customers. Vonage is seeking to establish E9-1-1 surcharge equivalents for E9-1-1 calling for Vonage subscribers and VoIP connectivity.

To learn more about Vonage surcharge conditions and thresholds visit: www.vonage.com/PSAPcenter

How will VoIP E9-1-1 calls reach my PSAP?

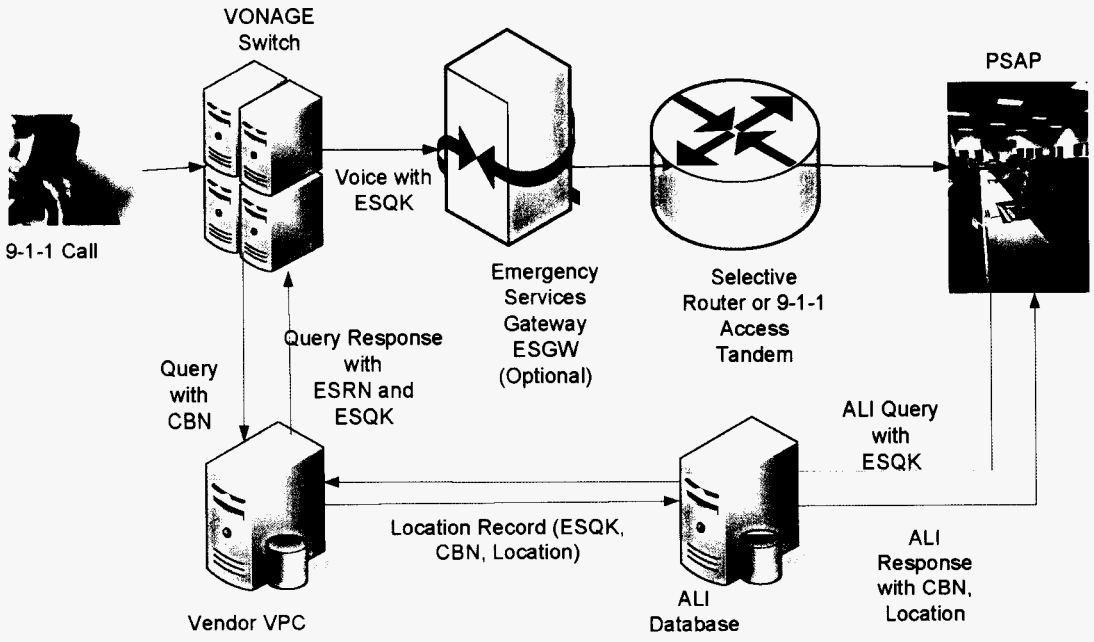
An E9-1-1 call placed using VoIP service will be routed to the PSAP serving the subscriber's self-identified address using a pseudo Automatic Number identification (pANI) referred to for VoIP as an ESQK (Emergency Service Query Key).

The ESQK is used to:

- Route the call to the appropriate PSAP
- Relay the Automatic Location Information (ALI) query to the appropriate third-party ALI database

The Vonage i2 compliant solution will provide operators with the callback number and subscriber provided location information for their customers who dial 9-1-1.

Vonage E9-1-1 Call Flow Diagram



VONAGE

Proprietary and Confidential

What type of caller location information can I expect to see at my PSAP?

The location information displayed at your PSAP will be the customer's self-identified address as provided to Vonage at the time of service sign-up and voluntarily updated when the customer changes locations.

VONAGE

Welcome - Joe Smith
Account Number: 1234567890 Account Status: Active
Account Name: Joe Smith

Dashboard Activity Billing Voicemail Account Orders Features Help Contact Log Out

911 FAQs

911 Dialing The address information that you submit will be used to ensure your 911 calls reach your area's nearest Public Safety Answering Point (PSAP).

Street Address Information For 1 (555) 123-4567:

To set up your Vonage 911 Dialing, please tell us below where you will be using your Vonage service.

Address Where 911 Dialing Will Be Used: (Do not enter a P.O. Box)

*Street Number *Street Name (e.g. Elm, Main) *Street Suffix (e.g. Street, Road)

Address Line 2 (e.g. Suite 123, Apartment 2B)

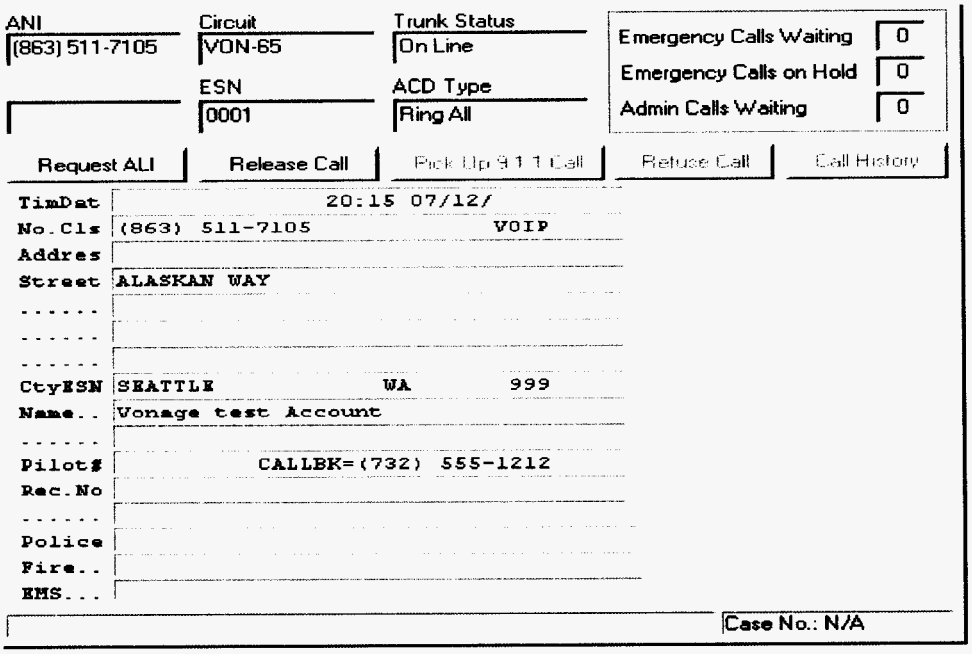
*City *State *Zip Code

* **Required** Field

Vonage is in the process of a nationwide rollout of Enhanced 911 (E911) service. While we have already rolled out E911 in certain areas of the country, it will take some time to fully rollout across the entire country, and we will notify you when we are able to offer E911 in your area.

Is there a special Class of Services (COS) for VoIP?

Many ALI providers and LECs are working to create a new class of services just for VoIP. The current COS capability for your PSAP is dependent on your LEC and ALI interface type (E2, PAM, etc). If the VoIP COS is not yet available, we will work with you to determine an area on your PSAP screen that can be used to designate our calls as VoIP.



This PSAP screen is an example only. Your specific display will vary based on CPE equipment, ALI display and LEC.

Are there any special upgrades I need in order to receive E9-1-1 calls from Vonage?

If your PSAP is currently able to accept E9-1-1 calls, there should not be any additional upgrades required. Please review the Deployment Checklist in this kit for a complete list of requirements for VoIP readiness.

Do I need a new MSAG ledger update and ESN for VoIP?

Vonage recommends that you contact your 9-1-1 System Service Provider (SSP) upon receipt of this kit to create a VoIP MSAG entry, which will allow us to build VoIP Shell Records with associated ESQKs for your PSAP in the ALI database. These shell records will be used to deliver VoIP caller location information to your PSAP much the same way as wireless call processing.

Below is an example of the format for this VoIP MSAG:

Street Name: VOIP 9-1-1 Caller
Community: *(your PSAP name)*
ESN: _____

Vonage will be using ESNs for routing purposes and only a single ESN per PSAP is required. This ESN can be the same as that currently used for Wireless E9-1-1.

Do I need new trunks for VoIP calls?

No additional trunks should be required for VoIP calls. The ESN assigned will provide the routing for the Selective Router.

What can I start doing now to get ready to take E9-1-1 calls from Vonage?

Review the Deployment Checklist in this kit.

Submit a request to your 9-1-1 SSP for a VoIP MSAG so that it will be ready to provide our VoIP E9-1-1 Deployment team.

If you have additional questions that have not been addressed here, please visit the website we've created for PSAPs at www.vonage.com/PSAPcenter.

When will my PSAP begin receiving VoIP E9-1-1 calls from Vonage?

In the upcoming weeks and months, Vonage will be adding to our current capabilities and begin rolling out our E9-1-1 service to PSAPs across our footprint. Vonage commits to do everything it can to meet the FCC's 120-day deadline. This full scale deployment requires a number of milestones to be achieved, including interconnection, routing capabilities and validation of other 9-1-1 elements. A Vonage deployment professional will be contacting you to schedule completion of deployment and testing.

What happens once my PSAP is "live" with VoIP E9-1-1?

We will send you a recommended "VoIP Standard Operating Procedure" document which will provide you with additional information once your deployment is complete. In addition, we will constantly be adding helpful tips and contact information to our website: www.vonage.com/PSAPcenter

What kind of E9-1-1 networks does Vonage have?

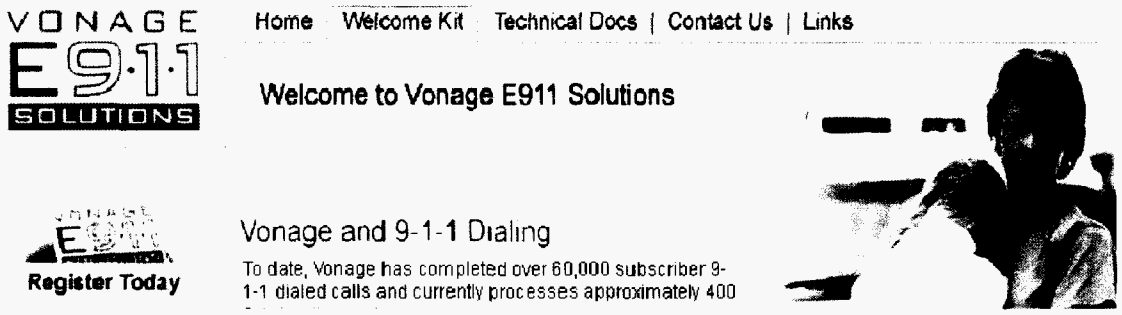
Vonage and the many VoIP E9-1-1 vendor partners under contract maintain carrier-grade networks and datacenters specifically designed to be redundant and built to ensure uninterrupted E9-1-1 call processing. Network Operations Centers (NOC) staffed 24x7x365 monitor all system and network activity and will be available for PSAP assistance or troubleshooting.

What E9-1-1 professionals are assisting Vonage in this deployment effort?

Vonage has partnered with the E9-1-1 deployment professionals at TeleCommunication Systems, Inc. (TCS) to assist in this enormous effort. With extensive experience in wireless carrier E9-1-1 deployments, TCS will be responsible for various project management functions in the Vonage deployment.

What other resources has Vonage created to help PSAPs?

Vonage has created a PSAP website, which can be found at www.vonage.com/PSAPcenter. If you have additional questions, you can contact us directly via this site.



Vonage Commits to 120-day Time Frame to Launch Enhanced 9-1-1 Capabilities and a Stronger Partnership with the 9-1-1 Community

Vonage Chairman and CEO Supports Stronger Partnership with the National Emergency Number Association (NENA) and the 9-1-1 Community

STATEMENT BY Vonage Chairman and CEO, Jeffery A. Citron
In the upcoming weeks and months, Vonage will be rolling out Enhanced 9-1-1 services across our footprint. This enormous undertaking will rely upon our successful partnership between Vonage, network service providers, third-party technology vendors and, most importantly, public safety. In order to provide our customers the best emergency services available we are extending our commitment to the public safety community to create a true partnership that will meet this end through cooperation, collaboration and coordination.

Vonage requests the assistance and guidance of the public safety community for the following initiatives:

Connection to 9-1-1 Selective Routers

Vonage needs access to over 750 selective routers scattered throughout the United States as quickly as possible. As an important first step in providing full E9-1-1 service, Vonage is encouraging all 9-1-1 leaders to work with 9-1-1 System Service Providers (SSPs) to ensure full connection and the integration of IP elements into the Selective Router (SR).

Access to p-ANI and Other vital E9-1-1 Elements

Using the wireless model for 9-1-1 access, Vonage is seeking appropriate pseudo-Automatic Number Information (p-ANI) and other vital elements to better facilitate the translation of IP-based callers into the traditional 9-1-1 system. We are asking the public safety community to get involved in this important discussion by meeting with the FCC and their 9-1-1 System Service Providers to ensure a consistent numbering scheme is implemented nationwide.

Proper Routing

To ensure consistent routing of 9-1-1 calls, Vonage is asking 9-1-1 leaders to be vigilant in alerting Vonage and its vendors of database errors and/or routing challenges as they arise.

About Vonage 9-1-1

Vonage brings together a dedicated team of 9-1-1 professionals and experts in technical, operational and policy leadership. The company has committed to deploying E9-1-1 within the 120-day timeframe mandated by the FCC order. The first full scale E9-1-1 deployment is slated for July 2005 in New York City. In addition to deploying E9-1-1 as quickly as possible, Vonage has brought a 24x7 call center online as an additional safety net for customers who have not activated our basic emergency services.

Vonage looks forward to a successful year and long partnership with the 9-1-1 community to work together to resolve issues related to the current IP solution, and on the joint development of the next generations of 9-1-1 services. To this end, Vonage will be creating web, email and phone support systems to interface with the PSAP community and NENA.

FOR MORE INFORMATION:
Stephen Seitz, Vonage, Vice President of 911 Regulatory Affairs 848-248-1809
John Cummings, Vice President of 911 Systems 848-248-9616

VoIP Glossary*

This is a glossary of VoIP terms for PSAPs. Not all of the terms are used in this PSAP Kit.

Term	Definition
ALI	Automatic location identifier: A database that relates a specific telephone number (TN) to an address. This database accepts a PSAP query with a TN and responds with an address. In the case of an ESQK, the ALI database steers the query to the appropriate VPC and steers the response back to the PSAP. An ALI is typically owned by a LEC or a PSAP.
ANI	Automatic number identification: Telephone number associated with the access line from which a call originates.
CBN	Callback number. The VoIP subscriber's telephone number.
CRN	Contingency routing number. A 10-digit, 7x24 PSAP emergency telephone number. Used for fallback routing if a call cannot be routed through the selective router to the PSAP.
ESGW	Emergency services gateway. A component, residing in the VoIP service provider's network, responsible for integrating the SIP network with the emergency services network and routing 9-1-1 calls to the appropriate selective router, based on the ESRN/ESQK it receives from the regional call server or the 9-1-1 call server.
ESQK	Emergency services query key. A digit string that uniquely identifies an ongoing emergency services call and is used to correlate the emergency services call with the associated data messages. It may also identify an emergency services zone and may be used to route the call through the network. Similar to an ESRK in wireless E9-1-1 networks.
ESN	An ESN is a three to five digit number representing a unique combination of emergency service agencies (Law Enforcement, Fire, and Emergency Medical Service) designated to serve a specific range of addresses within a particular geographical area, or Emergency Service Zone (ESZ). The ESN facilitates selective routing and selective transfer, if required, to the appropriate PSAP and the dispatching of the proper service agency (ies).
ESRN	Emergency services routing number. A 10-digit number that specifies the selective router to be used to route a call.
First responder	Police, fire, or medical resource who is dispatched to handle 9-1-1 calls and deliver emergency services.
I2	NENA defined VoIP E9-1-1 solution. I2 routes VoIP calls into the current E9-1-1 systems and to the correct PSAP with correct ANI and ALI. I2 accommodates both stationary and nomadic users and provides MSAG valid location information and provides a method for nomadic user location either through an automated process or user input via a service prompted web based form or equivalent. Intended migratory path from i1.
I3	NENA defined VoIP phase E9-1-1 solution. Also referred to as Long Term, Next Generation 9-1-1 Enables end to end IP based E9-1-1 design, supporting VoIP originated call delivery and the transition of current wireline and wireless service providers to IP interface technology. Support IP mobility users, and all capabilities of I2. Utilizes extended capabilities of IP to provide location and other information with the call, as well as other sub-sets of relevant
Lat/Lon	Latitude and longitude. Latitude and longitude are a coordinate system by means of which the position or location of any place on the earth's surface can be described. Also known as y,x.
LEC	A Telecommunications Carrier (TC) under the state/local Public Utilities Act that provide local exchange telecommunications services. Also known as Incumbent Local Exchange Carriers (ILECs), Alternate Local Exchange Carriers (ALECs), Competitive Local Exchange Carriers (CLECs), Competitive Access Providers (CAPs), Certified Local Exchange Carriers (CLECs), and Local Service Providers (LSPs).

Term	Definition
Mobile subscriber	A subscriber who uses a wireless device that can be in motion during the call. Wireless Fidelity (WiFi) VoIP is expected to eventually allow the end user to take a home-based telephony connection and roam within an interconnected wireless network, much as cellular technologies allow today.
MSAG	Master street address guide. An MSAG ledger is used by a municipality to assign a particular police, fire, or rescue agency to a given street and number range.
Nomadic subscriber	A subscriber who uses a device that is static during a call but does not have a static IP address assigned to it. Nomadic subscribers use Internet Service Provider (ISP) VoIP, which allows the end user to establish a telecommunications connection wherever he or she can obtain an Internet-based connection to her ISP provider.
PSAP	Public safety answering point. A PSAP is the endpoint of an emergency services call. PSAPs are responsible for answering emergency services calls (as defined in TIA J-STD-036).
SIP	Session Initiation Protocol. SIP is the IP-based protocol defined in IETF RFCs 3261 and 2543. SIP is one of two dominant messaging protocols used by the VoIP industry.
S/R	Selective Router. The node in the emergency services network that performs enhanced call routing for 9-1-1 calls. Usually operated by the LEC.
SSP (911)	System Service Provider. The entity that manages, maintains and provides various 911 elements such as ALI database, MSAG to Public Safety answering Points. This function is often performed by the LEC.
VoIP	Voice over Internet Protocol. VoIP is a system for providing telephone service over the Internet.
VoIP provider	A generic term to describe a company that provides VoIP call services. Some VoIP providers provide direct service to the consumer (VoIP service providers). Others provide backbone and PSTN access services (VoIP carriers). Still others provide ESGW (ESGW operators). Some VoIP providers provide more than one of these services.
VPC	VoIP positioning center. The application that determines the appropriate PSAP, based on the VoIP subscriber's position, returns associated routing instructions to the VoIP network, and provides the caller's location and the callback number to the PSAP through the ALI.

*This glossary was created with supporting content provided by the NENA Master Glossary of 9-1-1 terms. The complete glossary can be found at:
http://www.nena.org/9-1-1TechStandards/Standards_PDF/Master%20Glossary.pdf

VoIP 9-1-1 State Information

State-specific information was not available at time of printing.

Please check our PSAP website for the most current information provided by your State and Local 9-1-1 leaders.