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COMMUNICATIONS

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EX PARTE - VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Ex Parte Notice*, WC Docket 04-36

Dear Ms. Dortch:

Today the following Level 3 Communications representatives conducted a telephone conference call with FCC staff regarding IP-Enabled Services and 911 deployment: John Morgan, Vice President Softswitch Product Development, Bill Hunt, Vice President Public Policy, Greg Rogers, Director State Regulatory and Cindy Schonhaut, Director Federal Regulatory. On the call from the FCC were Michelle Carey, Deputy Chief of the Wireline Competition Bureau, Walter Johnson and John Healy from the Office and Engineering and Technology and the following people from the Competition Policy Division of the Wireline Competition Bureau: Terri Natoli, Julie Veach, Tim Stelzig, Nick Alexander, Carol Simpson, Christi Shewman, Tom Navin, and Takeo Iijima.

Level 3 discussed its experience in developing and implementing 911 and E-911 services in an IP environment. Attached is the Level 3 presentation that was discussed on the call.

Sincerely,

Cindy Schonhaut
Director, Federal Regulatory Affairs

Enc.

VON- E911/911 Evolution

John Morgan- VP Softswitch Product Development
April, 2005

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E911 Background

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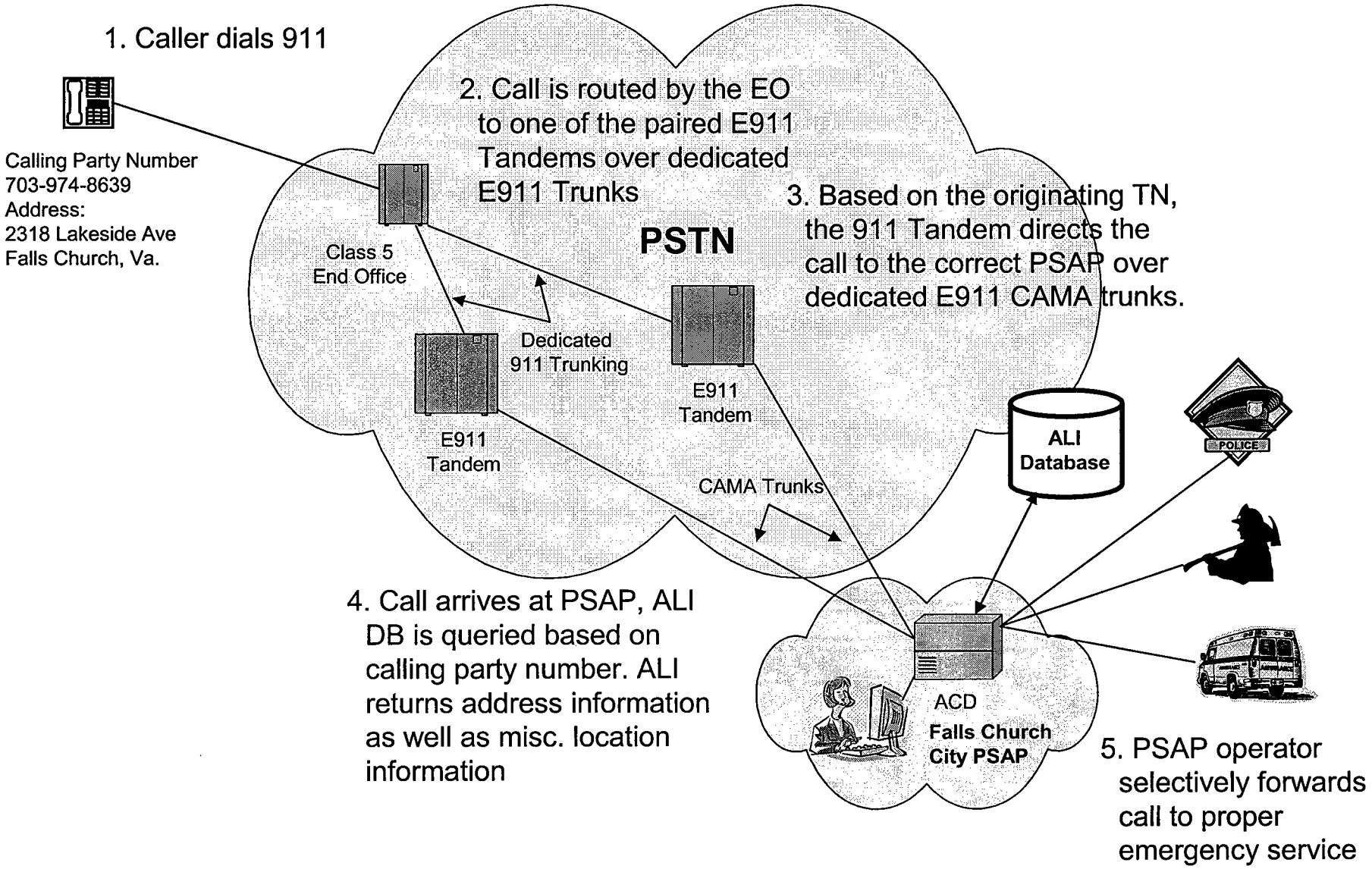
The current PSTN based Enhanced 911 (E911) system is a dedicated network with a high degree of reliability and redundancy.

The majority of E911 deployments include fail-safe measures such as:

- Dedicated trunking from end offices to the 911 Tandems (selective routers). Trunks often include a combination of SS7 and MF based signaling methodologies.
- Mated 911 Tandems
- Dedicated trunking from 911 Tandems to the PSAPs (Public Safety Answering Points)
- Default routing capabilities in the case of ANI failure
- Dedicated high availability ALI (Automatic Location Identification) databases to provide address information associated with ANI.
- Detailed logging of call events
- Ring back capabilities in the event of call abandonment

This system architecture has served the public well over the last 30 years. However, change is inevitable.

E911 Traditional LEC Reference Model



VOIP Offers New Features and Flexibility

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For landline customers, today's E911 networks are based on the premise that numbers are geographically relevant and that end-point locations are static. Major trends that are driving the E911 system to evolve include:

- The use of non-geographic relevant telephone numbers.
  - The resident of Boulder, CO with a Manhattan TN
- The mobile nature of VOIP endpoints.
  - Service is as close as the nearest IP connection
- The rise of Virtual numbers associated with a single VOIP endpoint
  - Multiple DIDs associated with one VOIP service
- IP enabled devices that do not (and will not) have telephone numbers
  - PC based VOIP services

New Opportunities to Expand E911 Features

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Over time, the advantages of IP to converge video, voice and data over a single connection will surpass the PSTN as a critical tool for first responders. Consider the following:

- Firefighters could have access to digital floor plans of a building showing stairwells, elevators and emergency exits.
- Diagrams of fire suppression infrastructure, standpipes, fire pumps, sprinkler systems, fire extinguishers, etc. could be relayed to first responders while en route.
- Patient history data and real time vital sign information could be transferred to paramedics in real time.

Understandably, there is skepticism amongst the providers of emergency services whose job it is to protect the public. It is critical for the VOIP community to include and educate these key stakeholders on the enormous benefits that VOIP can offer.

Major Goals of the NENA Technical Committee Migratory Working Group (i2 Initiative)

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To bridge the PSTN based E911 network and the evolving IP based environment, the National Emergency Number Association (NENA) has established the Migratory Working Group. This group is addressing near term technical issues associated with:

- Solving for location identification of IP enabled devices since the device TN is no longer relevant
- Directing the call to the correct PSAP based on the caller's current location
- Providing the PSAP administrator with a real time valid address in order to correctly dispatch the appropriate first responders.

While working under the guiding principals of:

- Minimizing the impact to PSAPs of supporting IP enabled devices.
- Building upon deployed technology in the network.
- Working closely with PSAPs, service providers, carriers, related standards bodies and equipment manufacturers to develop a common consensus and architectural approach.

Proposed i2 Implementation

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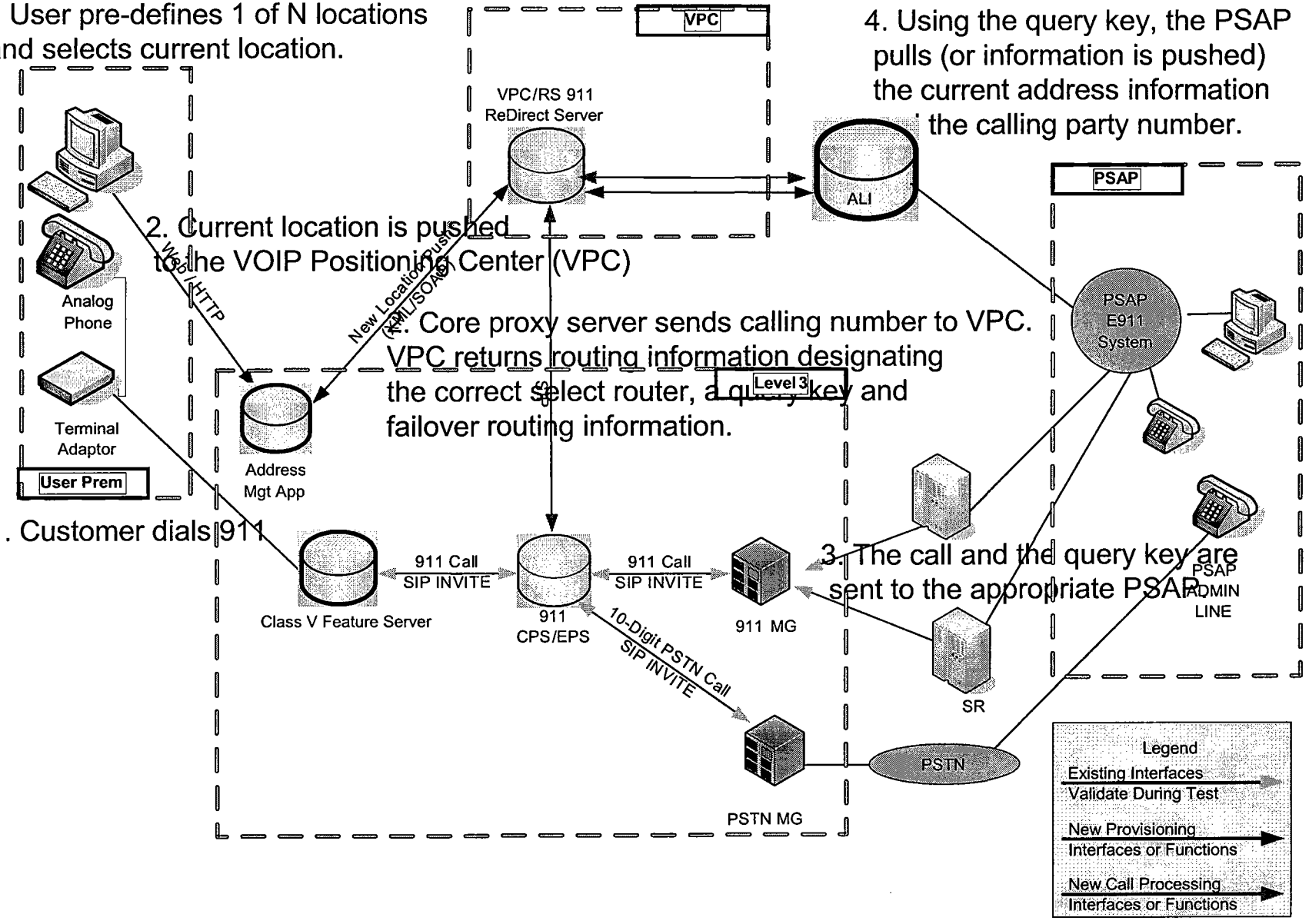
1. User pre-defines 1 of N locations and selects current location.

2. Current location is pushed to the VOIP Positioning Center (VPC)

3. Core proxy server sends calling number to VPC. VPC returns routing information designating the correct select router, a query key and failover routing information.

4. Using the query key, the PSAP pulls (or information is pushed) the current address information for the calling party number.

1. Customer dials 911



Conclusion

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1. The current E911 system has performed well over the years, but new services will drive fundamental change.
2. Change can also mean opportunity for providing even better first responder support.
3. The VOIP community has an obligation to educate and support agencies who provide emergency services.
4. We will see implementation of new methodologies in E911 networks to support VOIP services in the near future.