



Wireless Phase II E9-1-1 Service in Canada

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Bell

9-1-1 Product Manager &

Subject Matter Expert

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Bell

CRTC 2009-40 - Feb 2009

ESWG

-CRTC approves consensus report ESRE046 by CISC ESWG **Technical and Operational Requirements of Wireless Phase II E9-1-1 Implementation – staged approach**

- Develop roll out schedule for WSP Phase II Stage I and submit it to the CRTC
- file a report on deployment of wireless Phase II Stage 2 E9-1-1 features within 6 months

9-1-1 Service Providers

- Must file proposed revised E9-1-1 Wireless Tariff to the CRTC within 3 months
- Phase II Stage I must be implemented into our 9-1-1 Network within 6 months

Wireless Service Providers

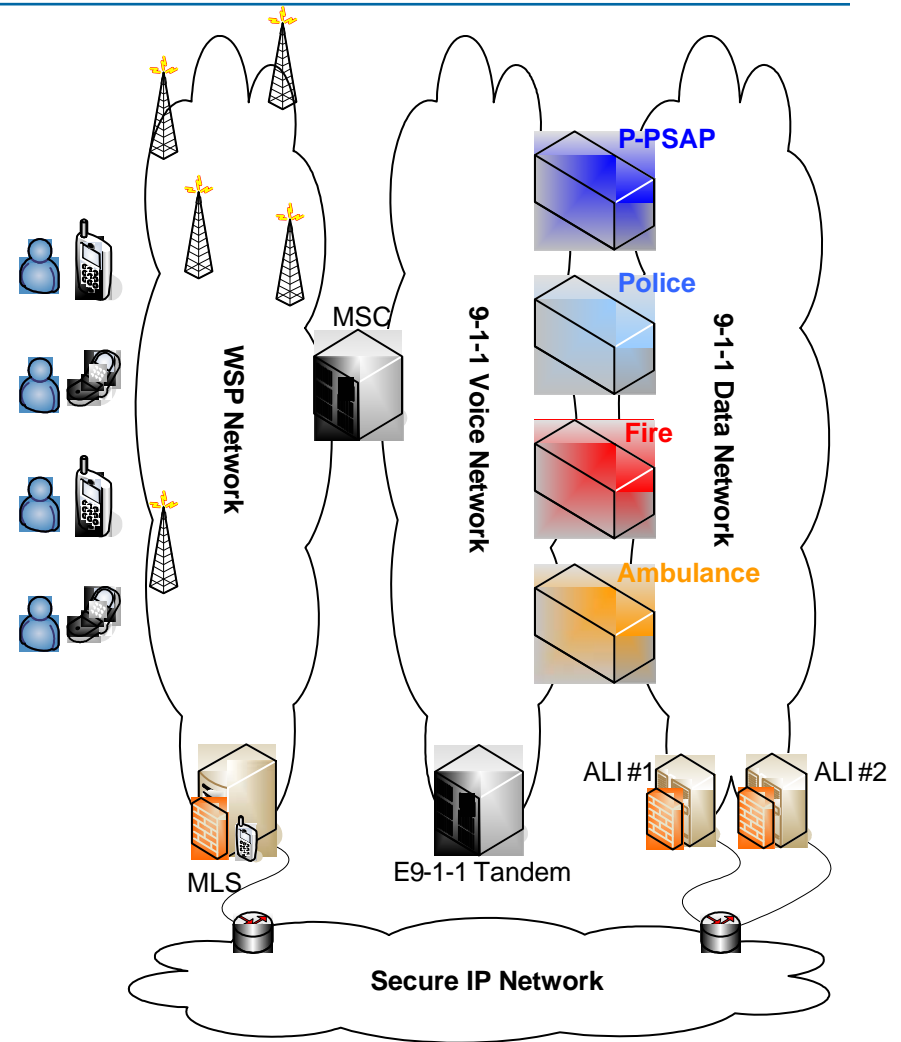
- Phase II Stage I must be implemented into wireless networks by February 1 2010
- Must be available wherever Wireline E9-1-1 service exists in Canada (same requirement as Phase I Wireless).
- Notification to wireless subscribers on or before implementation of wireless Phase II Stage 1 E9-1-1 service in a given area, all WSPs are to provide updated notification to customers on the availability, characteristics, and limitations of their wireless E9-1-1 service and handsets, with further notifications thereafter to all new customers at the time of service initiation and annually commencing on or before 1 July 2010. These notifications are to be prominently displayed in clear, legible print on customers' bills and other notification documents. Further, 60 days prior to the date of their first notification, all WSPs are required to file with the Commission, for information and consultation purposes, the proposed content of that notification
- WSPs to deploy wireless Phase II Stage 1 E9-1-1 service wherever wireline E9-1-1 service is available across Canada. (same as Phase I)
- The Commission denies the CWTA's request to create a prerequisite that PSAPs implement automatic mapping software before the wireless carriers are required to provide X,Y location information to them

New Wireless Entrants

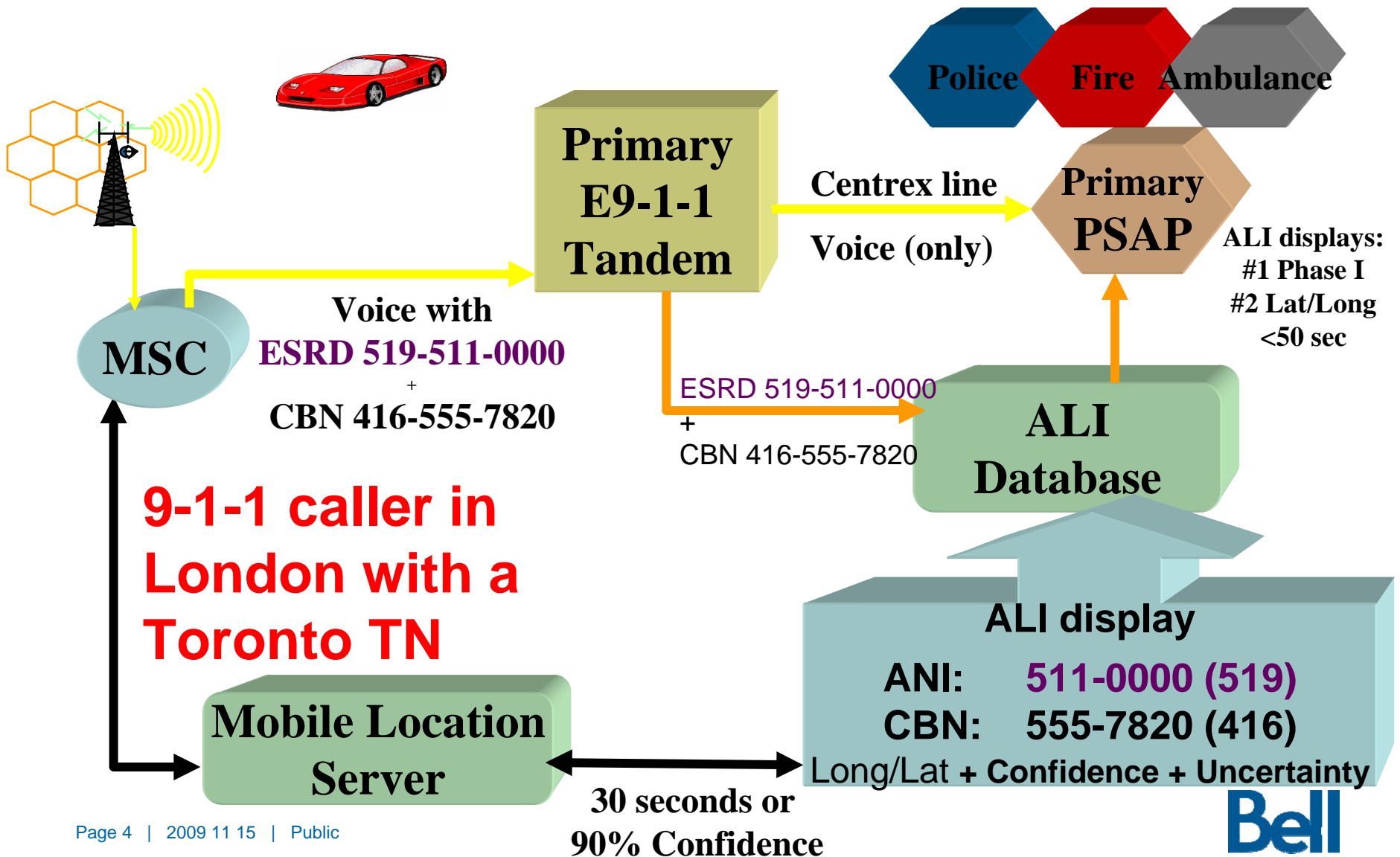
- When a new WSP enters the market, at the time of service launch it must support wireless Phase II Stage 1 E9-1-1 service where it has been implemented.
- Same requirement as current WSPs, Phase II Stage I by Feb 1 2010.

Wireless Phase II 9-1-1 call flow

1. The mobile subscriber makes a 9-1-1 call within the Phase II enabled area.
2. The E9-1-1 call is routed from the Mobile Switching Centre (MSC) to the E9-1-1 Tandem (phase I).
3. The E9-1-1 Tandem sends the call to the appropriate PSAP and signals the ALI with the Emergency Service Routing Digits (ESRD) and Mobile Directory Number (MDN) which is commonly referred to as the Call Back Number (CBN).
4. The ALI sends a first call display to the PSAP based on Phase I information (ESRD, cell sector) and call back number (MDN).
5. The ALI requests a location from the WSP's MLS using the MDN as the query key.
6. The WSP's MLS returns the subscriber's location back to the ALI.
7. The ALI then sends a 2nd call display augmented with the supplemental location information (Long/Lat coordinates), uncertainty and confidence values to the PSAP.



Wireless Phase II E9-1-1

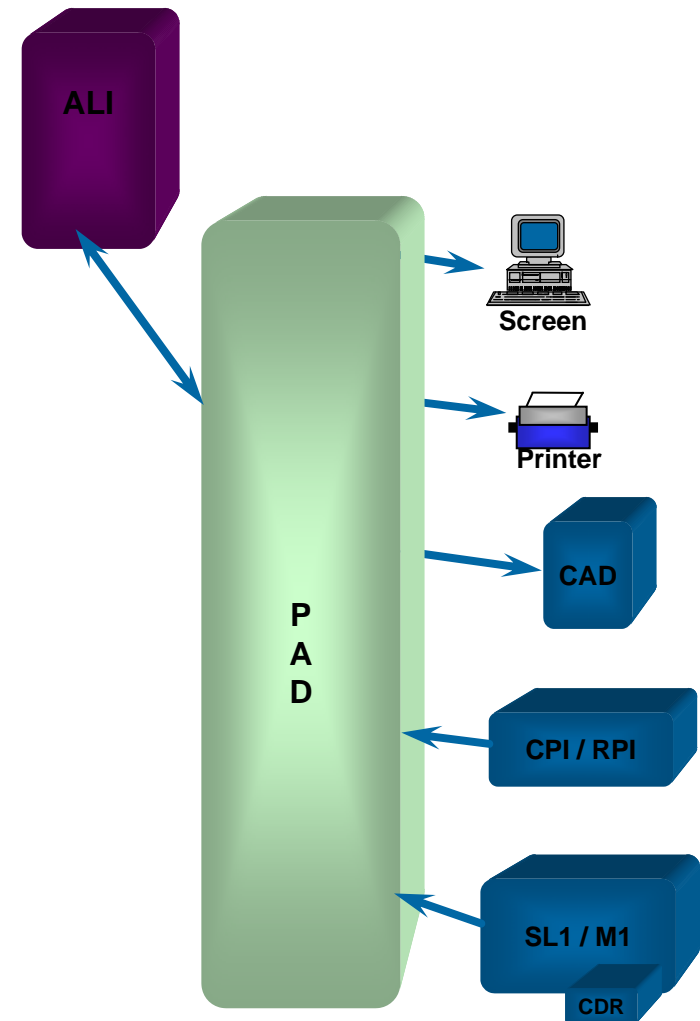


PSAP Interfaces

Any non-CAD or “dumb terminals” such as VT-XXX, printers, informer screens etc. will receive the additional Wireless E9-1-1 Phase II location information on these displays/devices with no system modifications and as soon as wireless carriers are deployed in the PSAP serving area (Aug 2009 – Feb 2010). Please note that if you are using these "dumb terminal" ports to capture data, your data application may require modification.

If your PSAP has a CAD interface for 9-1-1, modifications to your CAD protocols will be required to support the additional Phase II location information.

Similarly, if your PSAP uses a Bid-Switch protocol modification will be required in order to support the additional Phase II location information.



PH II 9-1-1 Network Changes - Documentation

ESRE0048

<http://www.crtc.gc.ca/cisc/eng/cisf3e4g.htm>

- **BID0013**

[http://www.bell.cdn-telco.com/bid/index.htm#LISTING%20OF%20BELL%20INTERFAC E%20DOCUMENTS%20\(BIDs\)](http://www.bell.cdn-telco.com/bid/index.htm#LISTING%20OF%20BELL%20INTERFAC E%20DOCUMENTS%20(BIDs))

- **PSAP Support Document**

Differences Between PH I & PH II

Phase I

- Cell tower address
- Call back number
- Wireless Network Provider
- Class of Service is CEL

Phase II

- Cell tower address
- Call back number
- Wireless Network Provider
- Class of Service is WL2
- 2nd 9-1-1 data packet with Phase I + Phase II data
- Phase II data → Lat/Long, confidence & uncertainty or error message

Differences Between PH I & PH II

Phase I

Phase II

```
Adelaide - SecureCRT
File Edit View Options Transfer Script Tools Window Help
type:PRT call:02569 answ:0073 svc:0054 tel:(416)511-0098 page
-----
.511-0098 (416)          CEL    TOR 09/09/09 10:24:19 #:02569
.CBN#                   Data LSP TN#:501-7727 (866)
.(330 GERRARD ST. E. TORONTO, ON) 290
.47 CELLULAR ST
.
.TORONTO TORONTO NA    ON
.
.POS Number: 141C      TORONTOPOL      #: 0073 SPSAP answer : --:--:--
.DMS line #: 03-015-32      #: ---- Time to conf.: --:--
.
-----
---- FORMATTED ----
Available options:
01. Next page          03. Toggle format      05. Help
02. Previous page     04. Print
adelaide | NORMAL (NORMAL ) | 2575 calls | 09/09/09 10:25 | gglio
Ready  ssh2: AES-12 | 22, 14 | 24 Rows, 89 Cols | VT100
```

```
Adelaide - SecureCRT
File Edit View Options Transfer Script Tools Window Help
type:PRT call:02569 answ:0073 svc:0054 tel:(416)511-0098 page 1 of 1
-----
.511-0098 (416)          WL2 TOR 09/09/09 10:24:20 #:02569
.CBN#                   Data LSP TN#:501-7727 (866)
.(330 GERRARD ST. E. TORONTO, ON) 290
.47 CELLULAR ST LAT:43 39 50.177N LONG:079 22 11.761W UNC:761 CONF:90
.
.TORONTO TORONTO NA    UN
.
.POS Number: 141C      TORONTOPOL      #: 0073 SPSAP answer : --:--:--
.DMS line #: 03-015-32      #: ---- Time to conf.: --:--
.
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Differences Between PH I & PH II

Phase II Error Messages

