

Wireless Working Group Meeting

Alberta E9-1-1 Wireless Trial – Calgary

Handout Provided by the
Alberta Wireless Team
(November 19, 1999)

the Trial Report
will be the official documented conclusion of the Trial. It is targeted at providing a framework for other interested parties (i.e. other Provincial PSAP's and ILEC's) to launch there own technical and/or commercial development of Wireless 9-1-1 solutions for the rest of Canada. This portion of the MOU will provide a preliminary list of factors that are important to learn, consider, prove, and document during the Trial.

Trial Plan

Alberta E9-1-1 Wireless Trial – Calgary

Introduction - Setting the Stage

Preamble

Wireless interconnection to the TELUS Communications Provincial E9-1-1 Network is presently accomplished using line side connections. The 9-1-1 call routing and information delivered with the 9-1-1 call reflects the location of the central office, not necessarily the wireless caller's location, and does not include the wireless caller's call back number.

The Alberta E911 Advisory Association, in an effort to move the work of the CWTA Wireless E911 Working Group (National) from high level conception to a ground level implementation stage, offered to assist TELUS Communications and the Wireless Service Providers (WSP's) in conducting a technical trial.

This technical trial will verify the suitability of using Feature Group 'D', ISUP 9-1-1 interconnection trunking between TELUS Communications and the WSP. This trunking arrangement will provide the ability of passing routing information (i.e. the location of the cell site/sector) and the call back number of wireless users from the WSP(s) switch(s) through the TELUS Communications Provincial E911 system to the PSAP and ultimately to the PSAP operator's ANI/ALI display.

Goals of the Trial

- 1) To validate the delivery of Cell Site and Sector information (Emergency Services Routing Digits (ESRD), formerly known as pseudo-ANI) to the City of Calgary PSAP. Targeted timeframe of Q4 1999. [UPDATED]
- 2) To validate the delivery of a 10 digit call back number to the City of Calgary PSAP RCER printer (see Schedule 'C'). Targeted timeframe of Q4 1999. [UPDATED]

Important Considerations

- The solution(s) for both Goals must be scalable to the entire Alberta Provincial 9-1-1 platform.
 - The solution(s) for both Goals must strongly consider the technical portability to other like Provincial 911 platforms, i.e. Ontario, Quebec, British Columbia.
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Important Considerations (continued)

- The Trial should focus on the delivery of meaningful and useful information to the PSAP operators, with little or no effect on current operational procedures.
 - The participants are individually responsible for Trial costs. However, a primary focus in this regard, will be the development of key business objectives that assist with justifying both the Trial and future wide spread Deployment expenses.
 - The solution(s), as much as practical, should not result in stranded investments for any of the parties involved.
 - As much as possible, the participants should consider a mechanism for future cost recovery that is fair and equitable.
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Data

Elements & Presentation. This preparation will be a cooperative effort between the WSP's, TELUS, and the Calgary PSAP to ensure the best possible data is available for display to the Calltakers. The target dates are as follows:

- Clearnet Date:
- Microcell Date:
- Rogers Cantel Date:
- Telus Mobility Date:

3) ESTABLISH T1 TRUNKING – each WSP will work with TELUS to establish and configure the trunking connection detailed in Schedule 'B' Trial Architecture. The target dates are as follows:

- Clearnet Date:
- Microcell Date:
- Rogers Cantel Date:
- Telus Mobility Date:

Part
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Training

Calgary PSAP Training Outline

- Preview – purpose of Trial, and expected outcomes
- Design – high level description of architecture of the Trial
- Screen Presentation – provide sample(s) of the typical CAD display of a wireless call
- Use of Overlay Maps – instruction regarding the use of each WSP's Trial Area coverage map
- Issues – identify an call processing irregularities and/or known problems, and how to handle
- Trouble Reporting – explain the process, and importance of reporting all problems / anomalies

Telus Provincial E911 Service Training

Provide training and/or instructions to database, network, and administration personnel, as deemed appropriate.

WSP Training

Provide training and/or instructions to database, network, and administration personnel, as deemed appropriate.

PRELIMINARY LIST OF ASSESSMENT FACTORS FOR THE ALBERTA “TRIAL REPORT”

Assessment of the viability of the technology and architecture used:

- validating the routing of Wireless Carrier 9-1-1 traffic to the proper PSAP using ESRD;
- validating the selective transfer of Wireless Carrier 9-1-1 calls to the proper PSAP using ESRD;
- validating the display of ESRD/cell site/sector information on call taker display terminal;
- validating the display of ESRD and callback number on call taker Meridian ACD (Automatic Call Distribution) set;
- Assess impact to carrier and PSAP personnel of keeping the location (cell site & sector) information up to date as patterns change, new cell sites/sectors are added, etc. & as feedback from PSAPs of problems in prediction of correct cell site & sector become evident.

The Calgary PSAP will assess the success of the Trial as follows:

- Determine if the receipt of CBN and cell site/sector information has improved the ability to handle wireless calls [survey method];
 - Determine if the receipt of cell site/sector data improves the efficiency of Call Takers when dealing with multiple calls for the same incident [survey method];
 - Determine the utility of hanging wall chart maps for reference purposes [survey method];
 - Determine if the timing, in terms of display of the ANI/ALI information to the call takers, is different than current wireline timing [survey method];
 - Determine if the ANI/ALI display of information is acceptable [survey method];
 - Identify any problems with the delivery of accurate cell site/sector information [sample analysis];
 - Identify the operational and administrative impacts caused by the display of false CBN's from unsubscribed callers;
 - Identify instances where the CBN is utilized for investigative purposes (i.e. to identify or re-contact a caller);
 - Identify instances where the CBN assisted in identifying nuisance or abusive callers;
 - Identify instances where the RCER (Remote Call Event Record) printout is utilized for evidentiary purposes;
 - Analysis of the effect on average total call duration (i.e. dialled digits to hang-up by the caller or primary/secondary PSAP) during the trial period [Comparison of TELUS Mobility and Clearnet pre-trial samples versus their measurements during the trial];
 - Need to determine number of actual on-site visits/responses to wireless 911 calls that are made during trial due to availability of cell site/sector data where none would have been possible before which is an assessment of the impact of having map information to locate callers [number of responses].
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