WISCONSIN LEGISLATIVE COUNCIL
STAFF MEMORANDUM

Memo No. 2

TO: MEMBERS OF THE SPECIAL COMMITTEE ON 911 COMMUNICATIONS

FROM: Larry Konopacki, Senior Staff Attorney; and Chadwick Brown, Staff Attorney

RE: Information on Various PSAP Costs

DATE: October 23, 2012

This memorandum provides additional information on various topics discussed by the Special Committee on 911 Communications at its previous meetings, including telecommunications costs associated with 911 services, equipment and operations costs of public safety answering points (PSAPs), and PSAP staff training.

TELECOMMUNICATIONS COSTS

Landline 911 Telecommunications Costs

The statewide cost of telecommunications service associated with landline 911 calls may be roughly estimated by using information related to the landline 911 service surcharge.[1] This surcharge is imposed by county ordinance and is levied against landline service users. It is generally restricted to a maximum charge of $0.40 per landline per month in counties recovering only recurring expenses and a maximum charge of $1.00 per landline per month in counties also recovering non-recurring expenses.[2] The amount of each county's surcharge, if the county chooses to impose one, is set by estimating the cost of landline 911 telecommunications service in that county and applying that cost across the estimated number of landlines in the county.

[1] This 911 service surcharge is outlined in s. 256.35 (3) (a) 3., Stats. It is not clear whether that statute is correctly construed to strictly limit the application of this fee to *only* landline telecommunications services. However, this appears to have been the practice of the counties and the telecommunications service providers.

[2] The cap is $0.25 per landline per month in a county with a population of 500,000 or more (Milwaukee County).

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According to the most recent data supplied to the committee by the Public Service Commission (PSC), the amount of county landline 911 service surcharges varied from a minimum of $0.16 per landline per month (Waukesha, Winnebago) up to the cap of $0.40 or $1.00 per landline per month.[3] This data also showed that the surcharges in 18 counties were capped at the $0.40 limit. In all but three of these 18 counties, the $0.40 per line surcharge is not sufficient to cover the cost of current 911 landline telecommunications services. The PSC's data also showed that the surcharges in three counties were subject to the $1.00 cap.

Attachment A includes the PSC's list of county landline 911 surcharges, based on countywide 911 telecommunications contracts filed with the PSC. Note that the older a county's contract is, the more likely that the current actual collections from the surcharge are different than what was estimated at the time the contract was written, because of changes in the number of landlines in the county over time.

Attachment B was also provided by the PSC. It provides a list of counties that are at one of the surcharge caps and the additional funding that must be provided from other county sources to cover the cost of landline 911 telecommunications service if it is not waived by the telecommunications provider.

Wireless 911 Telecommunications Costs

The cost of statewide telecommunications service associated with wireless 911 calls is not as easy to identify as landline costs. Currently, there is not a statewide fee to cover wireless 911 costs, and it appears that there is not an entity tracking these costs. Also, it appears from information received from a limited number of PSAPs that there is a good deal of variation among PSAPs in what portions of their 911 systems they consider to be in support of wireless versus landline 911 traffic. For instance, some dedicate separate telecommunications trunks for landline and wireless traffic and others combine trunks for both types of call traffic. For those PSAPs that dedicate separate wireless and landline trunks, the number of trunks assigned to each is up to the discretion of the PSAP (generally based on call volume education). Lastly, while most wireless 911 traffic is handled by county PSAPs, some is routed directly to municipal PSAPs, which adds complexity to estimating the costs of wireless 911 in some counties.

Based on information received from a small number of PSAPs, telecommunications costs associated with wireless 911 services appear to generally equal approximately 10-20% of a PSAP's landline telecommunications cost. The reasons that this percentage is so low, despite anecdotal evidence that wireless 911 calls now exceed landline 911 calls by a wide margin, appears to be based on the funding available to cover 911 telecommunications costs related to each type of technology and the order in which these technologies evolved.

Generally, at least basic landline 911 systems were in place for some time before people began using wireless phones to dial 911. Those landline systems have evolved over time, and now include a wide range of 911 system telecommunications components including call trunks, selective routers,

[3] Iron County does not have a countywide 911 telecommunications contract and does not collect a county landline 911 service surcharge. Vernon County has a countywide 911 telecommunications contract but chooses not to collect funds to pay for that contract through the landline 911surcharge.

various databases related to automatic number and location information, and others. As noted above, the landline telecommunications costs in most counties have been funded by a dedicated source: the landline 911 service surcharge. As various components have been added to landline 911 telecommunications systems, the surcharge has periodically been adjusted to reflect those changes.

The addition of wireless 911 calls apparently did not require much new investment in telecommunications system components because wireless 911 calls could utilize many of the existing telecommunications components in what was originally the landline 911 system without adding additional cost. Because of this, PSAPs appear to have continued funding these components with the landline surcharge. Where the addition of wireless 911 calls did create the need for system investment, like the addition of call trunks, those costs have generally been borne by PSAPs from other funding sources.

The use of landline systems to process wireless calls explains why the telecommunications costs associated with the wireless portion of the 911 system are relatively small as compared to the total telecommunications cost for 911 systems, despite the large percentage of 911 calls made by wireless telephone users.

PSAP EQUIPMENT AND OPERATIONS COSTS

2003 Wisconsin Act 48 created a three-year grant program to reimburse local governments and wireless telephone service providers for certain costs related to providing wireless enhanced 911 (E911) service. The grant program was administered by the PSC and was funded by a surcharge on the bills of wireless service customers in Wisconsin. The Act allowed eligible entities to recoup certain costs that were incurred as early as January 1, 1999.

Under the Act, wireless providers could be reimbursed for costs incurred to upgrade, purchase, lease, program, install, test, operate, or maintain all data, hardware, and software to be able to implement wireless E911. The Act also allowed local governments that operated "wireless" PSAPs to be reimbursed for the costs of leasing, purchasing, operating, or maintaining the wireless PSAPs. These functions could include costs for necessary network equipment, computer hardware and software, database equipment, and radio and telephone equipment located within the wireless PSAPs; training operators; network costs for delivery of 911 calls from wireless providers to wireless PSAPs; collection and maintenance of data used by the wireless PSAPs; and other operations.

Attachment C is a table provided by the PSC that summarizes the Act 48 grant payments made to wireless PSAPs.

The Act 48 grant program has expired. At this time, there is no dedicated state funding source for PSAPs other than the landline 911 service surcharge described above. This surcharge pays for local exchange carrier costs, up to specified limits, but does not provide funding for PSAP staffing and training, overhead, system hardware and software, wireless telecommunications service, or landline telecommunications service charges that exceed applicable funding caps. These costs are paid by the local unit of government from general unrestricted revenue sources like the property tax levy.

Based on past committee discussion and on information provided by a small number of PSAPs, it appears that the complicated phone systems, computer systems, and software programs used by PSAPs

are very expensive to replace. Estimates that have been provided by various PSAPs range from around $150,000 for replacement of a telephone system in a smaller PSAP to up to $2.5 million for replacement of a computer-aided dispatch system in a large PSAP. Some PSAPs have not added or upgraded equipment since the end of the Act 48 grant program. PSAPs have reported being in need of equipment or software upgrades within the next few years, especially if the 911 systems around the state move towards next generation 911 (NG911).

TRAINING

Based on information received from committee members and a small number of PSAPs, training costs for PSAP employees may include a wide range of different elements including the tuition and materials for a training course; travel, meals, lodging, and other incidentals for out-of-town training programs; overtime associated with staffing a trainee's shift or the trainee's overtime for his or her time in attendance at a training session; and certification of and staffing costs for on-staff trainers. There is a great deal of variation in training procedures between PSAPs, both in initial training of new hires and continuing training of personnel.

At some PSAPs, the initial training of newly hired telecommunicators may consist solely of on-the-job training by other staff on shift. Other PSAPs may provide some or all of the following to new hires: basic telecommunicator/dispatch training course (approximately 40 hours of training); CPR; Transaction Information for the Management of Enforcement (TIME) system training (basic and advanced); emergency medical dispatch and pre-arrival instruction; computer-aided dispatch; radio systems training; and other communication training, among others.

The estimated cost of initial training for new hires ranges widely between PSAPs depending on what training is being conducted. Some PSAPs estimate that no additional cost is incurred to train new hires while others estimate that they spend tens of thousands of dollars per new hire.

Some PSAPs also provide continuing training for telecommunicators. A range of different practices are applied by different PSAPs with respect to continuing education and appear to be dictated by training opportunities and the training funding that a PSAP has available for this purpose. Some PSAPs require a certain amount of continuing training time for each telecommunicator on a periodic basis. One of the major costs associated with continuing education appears to be the cost of paying for trainees' time at training and the cost of covering trainee's shifts in the call center while they are away for training.

LAK:CB:ksm

Attachments

ATTACHMENT A

County	Year of last contract	Current surcharge rate	Estimated collection per month	Estimated collection per year
Adams	2000	$0.30	$3,747.08	$44,964.96
Ashland	2004	$0.24	$2,633.89	$31,606.68
Barron	2009	$0.39	$8,533.98	$102,407.76
Bayfield	2012	$0.40	$7,825.40	$93,904.80
Brown	2007	$0.16	$19,033.78	$228,405.36
Buffalo	2002	$0.40	$3,076.49	$36,917.88
Burnett	2011	$0.45	$5,315.40	$63,784.80
Calumet	2000	$0.35	$6,878.62	$82,543.44
Chippewa	2002	$0.29	$9,254.16	$111,049.92
Clark	2010	$1.00	$15,268.96	$183,227.52
Columbia	2002	$0.24	$6,629.03	$79,548.36
Crawford	2001	$0.40	$3,883.28	$46,599.36
Dane	2012	$0.17	$55,213.46	$662,561.52
Dodge	2000	$0.26	$11,304.99	$135,659.88
Door	2002	$0.34	$8,660.01	$103,920.12
Douglas	2000	$0.35	$8,904.34	$106,852.08
Dunn	2002	$0.36	$8,452.37	$101,428.44
Eau Claire	2010	$0.20	$7,773.38	$93,280.56
Florence	2006	$0.40	$4,591.30	$55,095.60
Fond du Lac	2002	$0.23	$12,706.74	$152,480.88
Forest	2002	$0.40	$4,985.68	$59,828.16
Grant	2006	$0.19	$5,423.20	$65,078.40
Green	2007	$0.16	$2,750.67	$33,008.04
Green Lake	2007	$0.33	$3,552.76	$42,633.12
Iowa	2001	$0.26	$3,086.46	$37,037.52
Iron		$0.00	$0.00	$0.00
Jackson	2004	$0.31	$3,431.61	$41,179.32
Jefferson	2002	$0.20	$9,096.21	$109,154.52
Juneau	2000	$0.35	$5,006.37	$60,076.44
Kenosha	2002	$0.18	$15,463.56	$185,562.72
Kewaunee	2006	$0.40	$4,202.35	$50,428.20
La Crosse	2008	$0.21	$13,505.56	$162,066.72
Lafayette	2001	$0.40	$2,698.49	$32,381.88
Langlade	2000	$0.38	$4,851.87	$58,222.44
Lincoln	2000	$0.40	$6,569.03	$78,828.36
Manitowoc	2002	$0.27	$12,764.20	$153,170.40
Marathon	2002	$0.28	$19,471.09	$233,653.08

Marinette	2011	$0.40	$9,890.02	$118,680.24
Marquette	2001	$0.32	$3,096.04	$37,152.48
Menominee	2011	$1.00	$2,412.90	$28,954.80
Milwaukee	2011	$0.18	$61,491.66	$737,899.92
Monroe	2007	$0.40	$8,254.25	$99,051.00
Oconto	2002	$0.25	$5,356.68	$64,280.16
Oneida	2004	$0.30	$9,678.28	$116,139.36
Outagamie	2008	$0.16	$13,256.99	$159,083.88
Ozaukee	2002	$0.17	$9,583.11	$114,997.32
Pepin	2009	$0.40	$3,041.94	$36,503.28
Pierce	2001	$0.29	$5,528.58	$66,342.96
Polk	2005	$0.40	$10,364.63	$124,375.56
Portage	2007	$0.36	$9,362.50	$112,350.00
Price	2002	$0.40	$8,998.25	$107,979.00
Racine	2003	$0.17	$16,876.89	$202,522.68
Richland	2001	$0.40	$4,983.37	$59,800.44
Rock	2005	$0.24	$15,637.19	$187,646.28
Rusk	2009	$0.40	$5,002.57	$60,030.84
Sauk	2001	$0.29	$10,788.89	$129,466.68
Sawyer	2012	$0.57	$6,015.01	$72,180.12
Shawano	2007	$0.40	$9,037.80	$108,453.60
Sheboygan	2007	$0.24	$12,434.30	$149,211.60
St Croix	2000	$0.23	$9,028.14	$108,337.68
Taylor	2010	$1.00	$9,683.16	$116,197.92
Trempealeau	2004	$0.37	$5,772.23	$69,266.76
Vernon	2000	$0.00	$4,800.00	$57,600.00
Vilas	2000	$0.30	$6,693.06	$80,316.72
Walworth	2012	$0.40	$21,763.73	$261,164.76
Washburn	2008	$0.37	$3,928.93	$47,147.16
Washington	2002	$0.17	$12,460.96	$149,531.52
Waukesha	2009	$0.16	$37,244.89	$446,938.68
Waupaca	2008	$0.27	$7,240.44	$86,885.28
Waushara	2007	$0.32	$4,446.45	$53,357.40
Winnebago	2002	$0.16	$16,172.75	$194,073.00
Wood	2007	$0.40	$17,310.37	$207,724.44
Total			**$724,182.73**	**$8,690,192.76**

ATTACHMENT B

The list below provides the counties now limited by one of the caps. In parentheses is the amount that the county is billed each month in addition to the 911 surcharge (or could be billed, since in some cases I do not know for sure that the carrier is actually rendering a bill):

$1.00 Cap

Clark ($1,636)

Menominee ($8)

Taylor ($1,331)

$0.40 Cap

Bayfield ($3,762)

Buffalo ($0)

Crawford ($197)

Florence ($3,211)

Forest ($2,204)

Kewaunee ($524)

Lafayette ($0)

Lincoln ($0)

Marinette ($1,963)

Monroe ($202)

Pepin ($1,460)

Polk ($269)

Price ($4,938)

Richland ($1,239)

Rusk ($669)

Shawano ($7,042)

Walworth ($2,922)

Wood ($327)

ATTACHMENT C

Grant Recipient	Service ?	grant award	grant award paid out to date	% paid out	grant award remaining	% remaining
Adams County	yes	$351,908.27	$305,535.50	86.82%	$46,372.77	13.18%
Ashland County	yes	$310,213.84	$310,213.84	100.00%	$0.00	0.00%
Barron County	yes	$418,698.70	$418,698.70	100.00%	$0.00	0.00%
Bayfield County	yes	$386,492.97	$386,492.97	100.00%	$0.00	0.00%
Brown County	yes	$766,016.05	$766,016.05	100.00%	$0.00	0.00%
Buffalo County	yes	$522,730.78	$441,346.29	84.43%	$81,384.49	15.57%
Burnett County	yes	$261,179.59	$248,013.75	94.96%	$13,165.84	5.04%
Calumet County	yes	$413,163.93	$413,163.93	100.00%	$0.00	0.00%
Chippewa County	yes	$430,075.41	$330,496.20	76.85%	$99,579.21	23.15%
Clark County	yes	$543,624.09	$501,691.49	92.29%	$41,932.60	7.71%
Columbia County	yes	$386,110.30	$386,110.30	100.00%	$0.00	0.00%
Crawford County	yes	$229,789.32	$179,117.04	77.95%	$50,672.28	22.05%
Dane County	yes	$867,878.05	$501,170.95	57.75%	$366,707.10	42.25%
Dodge County	yes	$1,163,935.49	$1,107,441.28	95.15%	$56,494.21	4.85%
Door County	yes	$153,227.13	$153,227.12	100.00%	$0.01	0.00%
Douglas County	yes	$384,583.86	$384,583.86	100.00%	$0.00	0.00%
Dunn County	testing	$798,290.66	$656,230.91	82.20%	$142,059.75	17.80%
Eau Claire County	yes	$1,155,395.26	$1,155,395.26	100.00%	$0.00	0.00%
Florence County	yes	$68,531.38	$68,531.38	100.00%	$0.00	0.00%
Fond du Lac County	yes	$664,440.07	$664,440.07	100.00%	$0.00	0.00%
Forest County	yes	$98,791.11	$84,087.65	85.12%	$14,703.46	14.88%
Grant County	yes	$211,929.11	$211,929.11	100.00%	$0.00	0.00%
Green County	yes	$316,807.50	$308,274.12	97.31%	$8,533.38	2.69%
Green Lake County	yes	$328,058.13	$290,034.58	88.41%	$38,023.55	11.59%
Iowa County	yes	$227,081.46	$188,808.42	83.15%	$38,273.04	16.85%
Iron County	NO	$0.00	$0.00		$0.00	
Jackson County	yes	$396,207.34	$396,207.34	100.00%	$0.00	0.00%
Jefferson County	yes	$285,275.78	$260,910.00	91.46%	$24,365.78	8.54%
Juneau County	yes	$0.00	$0.00		$0.00	
Kenosha County	yes	$1,078,246.90	$1,078,246.90	100.00%	$0.00	0.00%
Kewaunee County	yes	$76,010.00	$59,772.81	78.64%	$16,237.19	21.36%
La Crosse County	yes	$597,392.01	$567,814.35	95.05%	$29,577.66	4.95%
Lafayette County	yes	$132,867.25	$36,127.86	27.19%	$96,739.39	72.81%
Langlade County	yes	$95,470.18	$77,059.13	80.72%	$18,411.05	19.28%
Lincoln County	yes	$452,891.68	$384,298.32	84.85%	$68,593.36	15.15%
Manitowoc County	yes	$658,596.75	$658,596.75	100.00%	$0.00	0.00%
Marathon County	yes	$262,950.85	$262,950.85	100.00%	$0.00	0.00%
Marinette County	yes	$466,337.36	$372,427.78	79.86%	$93,909.58	20.14%
Marquette County	yes	$161,924.31	$155,018.11	95.73%	$6,906.20	4.27%

Menominee County	NO	$0.00	$0.00		$0.00	
Milwaukee County	yes	$5,059,087.13	$5,059,014.58	100.00%	$72.55	0.00%
Monroe County	yes	$460,502.21	$428,872.91	93.13%	$31,629.30	6.87%
Oconto County	yes	$334,654.18	$315,879.02	94.39%	$18,775.16	5.61%
Oneida County	yes	$476,899.83	$476,899.83	100.00%	$0.00	0.00%
Outagamie County	yes	$602,034.20	$602,034.20	100.00%	$0.00	0.00%
Ozaukee County	yes	$489,615.99	$381,770.74	77.97%	$107,845.25	22.03%
Pepin County	yes	$209,056.99	$184,781.84	88.39%	$24,275.15	11.61%
Pierce County	yes	$224,391.95	$224,371.45	99.99%	$20.50	0.01%
Polk County	yes	$876,717.31	$876,717.31	100.00%	$0.00	0.00%
Portage County	yes	$323,866.15	$293,935.51	90.76%	$29,930.64	9.24%
Price County	yes	$222,912.88	$222,912.88	100.00%	$0.00	0.00%
Racine County	yes	$424,812.80	$424,812.80	100.00%	$0.00	0.00%
Richland County	yes	$247,862.88	$247,862.88	100.00%	$0.00	0.00%
Rock County	yes	$1,103,895.29	$1,103,895.29	100.00%	$0.00	0.00%
Rusk County	yes	$152,492.63	$138,837.50	91.05%	$13,655.13	8.95%
Sauk County	yes	$436,405.94	$388,584.50	89.04%	$47,821.44	10.96%
Sawyer County	yes	$224,742.06	$224,742.06	100.00%	$0.00	0.00%
Shawano County	yes	$183,500.39	$183,500.39	100.00%	$0.00	0.00%
Sheboygan County	yes	$407,501.87	$243,908.08	59.85%	$163,593.79	40.15%
St Croix County	yes	$253,074.87	$253,074.87	100.00%	$0.00	0.00%
Taylor County	NO	$0.00	$0.00		$0.00	
Trempealeau County	yes	$1,130,044.03	$1,052,518.14	93.14%	$77,525.89	6.86%
Vernon County	yes	$536,832.83	$345,517.67	64.36%	$191,315.16	35.64%
Vilas County	yes	$401,433.47	$401,433.47	100.00%	$0.00	0.00%
Walworth County	yes	$398,334.37	$398,334.37	100.00%	$0.00	0.00%
Washburn County	yes	$255,696.34	$207,409.46	81.12%	$48,286.88	18.88%
Washington County	yes	$449,410.68	$216,896.73	48.26%	$232,513.95	51.74%
Waukesha County	yes	$1,469,044.60	$1,187,159.14	80.81%	$281,885.46	19.19%
Waupaca County	yes	$152,633.59	$152,633.59	100.00%	$0.00	0.00%
Waushara County	yes	$285,347.19	$285,347.19	100.00%	$0.00	0.00%
Winnebago County	yes	$621,873.46	$621,873.46	100.00%	$0.00	0.00%
Wood County	yes	$270,438.54	$270,438.54	100.00%	$0.00	0.00%
County totals		**$34,808,239.52**	**$32,186,451.37**	**92.47%**	**$2,621,788.15**	**7.53%**
Wireless Providers totals		$52,705,783.32	$30,145,703.91	57.20%	$22,560,079.41	42.80%
Total Disbursement		**$87,514,022.84**	**$62,332,155.28**	**71.23%**	**$25,181,867.56**	**28.77%**