

VICTIM: PERSONAL TELCO PROJECT, Inc.

Defendant: JASON WALTER GRAHAM 2090129-1

DDA:

Trial Unit: District Court Trial
Police Agency: Portland Police Bureau
Report Number: 06-69985
Incident Date: 08/04/2006

Attachment to REQUEST FOR RESTITUTION

II. PROPERTY LOSSES:

A. Background

The Personal Telco Project, Inc constructed and operates a wireless network in the Boise Neighborhood providing Internet access to the general public, free of charge. A portion of the equipment used to operate this network was located on the roof of the Mississippi Ballroom building, at 4008 N. Mississippi Avenue.

B. Equipment Affected and it original purchase costs:

Three masts and the attached equipment were thrown off of the roof in the early morning of August 4, 2006, two of them striking the ground and the third becoming snagged in a tree:

- i. Mast 1 was located in the NW corner of the roof (struck the ground)
 - a) Metrix Mark II Kit (original cost \$450)
 - b) 30-inch Non-Penetrating Tripod (original cost \$45)
 - c) 17dB, 5.8GHz Echo Round Flat Panel Antenna, used (original cost \$20)
 - d) 9dB, 2.4GHz 120° Sector Antenna (original cost \$36)
 - e) 5' LMR195 Low-Loss Jumper Cable (2 @ original cost \$14, \$28 total)
- ii. Mast 2 was located in the SW corner of the roof (snagged in a tree about half the way to the ground)
 - a) Metrix Mark II Kit (original cost \$450)
 - b) 30-inch Non-Penetrating Tripod (original cost \$45)
 - c) 17dB, 5.8GHz Echo Round Flat Panel Antenna, used (original cost \$20)
 - d) 9dB, 2.4GHz 120° Sector Antenna (original cost \$36)
 - e) 5' LMR195 Low-Loss Jumper Cable (2 @ original cost \$14, \$28 total)
- iii. Mast 3 was located in the SE corner of the roof (struck the ground)
 - a) NEMA4 Polycarbonate/ABS Enclosure, 10"x7"x3" (original cost \$25)
 - b) Cisco AIRONET 1200 Series Wireless Access Point (donated by Intel, understood to originally cost about \$600)
 - c) 30-inch Non-Penetrating Tripod (original cost \$45)
 - d) 9dB, 2.4GHz 120° Sector Antenna (original cost \$36)
 - e) 5' LMR195 Low-Loss Jumper Cable (original cost \$14)

Note: With the exception of the Non-Penetrating Tripods, this equipment consists of electronic devices not designed to survive a fall of 30-odd feet onto the pavement. While some of the equipment appeared to function immediately after the incident, over the course of the next year it will be subjected to a much wider range of temperature variation, during which minute fractures in the circuitry might no longer make contact, leading to malfunction. We are concerned that what appears to be initial survival of particular items might prove otherwise in the course of time.

C. Obviously Damaged Items:

- i. The outer enclosure, the internal mounting pegs, and one of the external connectors of the Metrix Mark II from Mast 1 were broken and replaced. The outer enclosure was replaced for \$25 (Mouser Electronics, invoice number 28032218), about two hours of volunteer labor was spent setting up and machining suitable holes in the enclosure. The broken external connector and gasket were replaced for \$16 (Amphenol Part No. RFJ54421 and 54402JE, respectively, purchased from Newark-in-One, Order #345981). Identical replacement parts for the broken internal mounting pegs could not be located, so a mounting was improvised from nuts, bolts and nylon spacers obtained from a local hardware store (about \$5).
- ii. The two LMR195 Jumper Cables from Mast 2 subsequently proved to be unreliable and were replaced. These cables, which communicate radio signals from the Metrix Mark II enclosure to the antennas, apparently are what snagged in the tree and prevented the mast from continuing on to the ground. These were replaced from our existing stock (total cost \$28).
- iii. A several inch-long hole was broken in the plastic shroud on the 9dB antenna from Mast 3, and the internal parts possibly damaged. As a device intended to be used outdoors in Portland, requiring a weatherproof seal to operate, we consider this a total loss (cost \$36).
- iv. Ethernet cables providing communications and power from wired equipment inside the building to the outdoor devices were all severed. In order to reuse the outer portion of the ethernet cables attaching to the Metrix Mark II enclosures, a special disassembly tool was needed, at a cost of \$7.27 (Newark-in-One, Order #345981).
- v. Shipping costs associated with the Mouser and Newark-in-One orders referenced above were: \$6.28 and \$6.05, respectively.
- vi. In addition to the direct material costs of lost items and their replacements, volunteers of Personal Telco Project, Inc. expended considerable time: initially returning the network to operation, identifying and diagnosing failed parts, and working to repair broken parts at minimal direct cost. This was time that might have been used to improve and expand the operation of the network, rather than merely return it to the previous status quo.
 - a) On the day of the incident, four Personal Telco volunteers (Russell Senior, Don Park, Michael Weinberg and Caleb Phillips) spent a

combined 14 man-hours assessing the damage, hoisting the equipment back onto the roof, and generally putting the pieces back together.

- b) For the next several days, until the evening of August 8, we experienced nightly failures on one of the wireless links connecting the rest of the network to the Internet. These failures led to many hours of labor to identify the source of the problem, ultimately determined to be one of the jumper cables on Mast 2. The estimated volunteer time spent on diagnosing and correcting this problem is 16 man-hours.
- August 5, 4 people (Russell Senior, Don Park, Michael Weinberg and Caleb Phillips), 2 hours each.
 - August 7, 2 people (Russell Senior, Michael Weinberg), 2 hours each.
 - August 8, 2 people (Russell Senior, Caleb Phillips), 2 hours each.
- c) Russell Senior spent approximately 10 hours disassembling the broken parts of the Metrix Mark 2 from Mast 1, identifying the replacement parts, ordering them, and then reassembling the parts into a functional unit.

Total estimated skilled man-hours of volunteer labor expended to return the network to the status quo: 40.

D. Less-obviously damaged items:

- i. Of particular concern to Personal Telco Project, Inc. is the condition of the contents of the Metrix Mark II enclosure from Mast 1. The shock of the impact with the ground was sufficient to fracture the polycarbonate case and to break 3 out of 4 nylon standoff pegs, dislodging the circuit board from its mounting. We are concerned that this shock will lead to the ultimate failure of the circuit board and/or the two attached radio cards, particularly this winter during low temperature events. We are not so concerned about the Metrix Mark II from Mast 2, as it did not strike the ground with such force. The vulnerability of the Cisco Access Point from Mast 3 to ultimate failure is not known to us, though that mast appeared to hit the ground the most forcefully of the three.

E. Summary

In summary, the damages we have suffered, for which we would like to be compensated in any just restitution consist of: the direct material costs, the hours of skilled volunteer labor expended in remediating the damage, and some provision for the substantial risk of premature failure of the electronic equipment that was subjected to the shock of impact.

- i. Direct material costs:

Item	Amount
Bud Industries PN1339 Enclosure	\$25.00
shipping	\$6.28
Amphenol RJF54421 (connector)	\$15.31

Amphenol 54402JE (gasket)	\$0.69
Amphenol 5440OT02 (extractor tool)	\$7.27
shipping	\$6.05
Miscellaneous standoff hardware	\$5.00
9dB 2.4GHz 120° Sector Antenna	\$36.00
5' LMR195 Jumper Cables (x2 @\$14)	\$28.00
TOTAL	\$129.60

ii. Skilled Volunteer Labor: 40 hours

iii. Value of equipment at significant risk for premature failure:

a) Metrix Mark II (\$450)

b) Cisco Aironet 1200 series Wireless Access Point (\$600)