

**UW Telephone Service Outage: 543, 616, 744, and 934 incoming calls blocked – Feb. 27, 2010**

- *Level3 Communications telephone switching failure disrupts four UW phone prefixes.*

**Outage Summary**

At approximately 10:30 a.m. on Saturday, February 27, inbound calls to UW phone numbers in the 543, 616, 744, and 934 prefixes<sup>1</sup> were blocked. Most callers received a busy signal or “all circuits are busy now” recording. The problem was isolated to Level3 Communications (Level3), one of four vendors who provide UW phone numbers. During this outage, UW’s phone system remained fully operational. Internal calling within UW, outbound local and long distance calling, and incoming calls to phones with numbers in UW’s other prefixes (such as 221, 520, 685, 897, 253-692, and 425-352) were unaffected by the Level3 service outage.

The Seattle Regional Calling Service (RCS) attendant<sup>2</sup>, 206.685.5500, provided an alternate way to reach people who had phone numbers affected by the Level3 outage. In addition, 206.731.3000 was used to reach the Harborview switchboard.

Service was restored to Harborview 744 phone numbers at 4:40 p.m. Saturday, and UW’s other prefixes were operational by 11 p.m. on Saturday. Level3 restored UW’s full capacity by 4 a.m. Sunday, February 28.

**Level3 Response**

Level3 reports an electrical system failure in their facility led to a complete shutdown of their switching system that delivers telephone service in the Seattle area, including UW’s telephone prefixes 543, 616, 744, and 934. Although temporary power repairs were completed by early afternoon, additional software and hardware damage delayed restoration of Level3’s telephone switching system. While Level3’s switch was offline, there was no way to process any telephone calls and no forwarding or announcements were possible for their customers’ numbers. Level3 is conducting a root cause analysis and identifying corrective measures.

**UW Resiliency Efforts**

While this type of telephone company failure is rare, it remains one of the most challenging components of UW’s overall communications network to mitigate outages. Here are some of the ways UW has designed resiliency and reduced single points of failure:

- UW utilizes four different service providers to deliver phone numbers.
- UW maintains multiple connections to its service providers using diverse physical routes whenever possible.
- UW uses advanced routing capabilities for critical numbers to reduce down time.

- UW works with 24x7 customers to provide backup phone numbers to mitigate disruptions.
- UW offers RCS attendant (206.685.5500) to provide an alternative method of reaching UW phone numbers.

## **UW Technology Response**

When major service outages occur, UW Technology is prepared to respond effectively by:

- Maintaining 24x7 on-call technical support staff.
- Activating “incident command” procedures to manage response and recovery.
- Using conference bridges to convene subject matter experts and support staff virtually to quickly assess situation and identify resources required to respond.
- Developing contingency plans and pre-provisioned backup arrangements to minimize customer impact during outages.
- Escalating internally and with service providers as needed to reduce time to repair.
- Prioritizing restoration based on established customer plans and consultations with customers and partners with critical needs.
- Communicating broadly with customers using E-Outage<sup>3</sup>, and when necessary, posting emergency banners on the UW home page<sup>4</sup>.

UW Technology conducts after action review and follow-up (AARF) reports to ensure lessons learned from incidents are incorporated for continual service improvement.

## **More Information**

We regret any inconvenience to our customers and partners during this extended service disruption. While every effort is made to respond effectively, your feedback is welcome to enhance our ability to support you. For additional information or to discuss this particular outage further, please contact Scott Mah at [tech-avp@uw.edu](mailto:tech-avp@uw.edu).

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<sup>1</sup>A smaller number of specialized telephone numbers in the following prefixes were also affected by the Level3 outage: 206-732, 206-774, 253-238, 253-239, 253-449, 253-886, 360-252, 360-504, 360-519, 360-535, 360-539, 360-542, 360-543, 360-544, 360-554, 360-557, 360-612, 360-614, 360-615, 425-519, 425-586.

<sup>2</sup>UW Regional Calling Service (RCS)/Call UW allows people to reach UW telephone numbers toll-free by dialing specific telephone numbers in communities throughout Western Washington. The Seattle RCS attendant number also provides an alternate method of reaching UW phone numbers from the Seattle area. For more information visit: <http://uw.edu/itconnect/> and enter “Call UW” in the search box.

<sup>3</sup>E-Outage is an optional mailing list and Web site that reports any major technology service issues affecting the UW community. For more information visit: <http://uw.edu/eoutage>

<sup>4</sup>The UW Alert emergency site is also available at: <http://emergency.uw.edu>