

BTS-2.11 - Analog Modems

ANALOG MODEMS

Administrative Rule Adopted by Office of Management and Finance Pursuant to Rule-Making Authority

ARB-BTS-2.11

Purpose

This policy explains the City's analog modem acceptable use and approval rules and procedures. This policy covers the use of modems that are connected to City Trusted Networks and City Technology Resources.

This rule covers only those modems that are connected to a device inside City facilities.

There are two important scenarios that involve modem misuse which BTS attempts to guard against through this policy. The first is an outside attacker who calls a set of phone numbers in the hope of connecting to a device which has a modem attached to it. If the modem answers from inside City premises there is the possibility of breaching the City's internal networks through that device. At the very least, information that is held on that device can be compromised. This potentially results in the loss of City Confidential and Restricted Information.

The second scenario is the threat of anyone with physical access into a City facility being able to use a modem equipped device. In this case, the intruder could connect to City Trusted Networks of the City through the device's Ethernet connection and call outbound to an unmonitored site using the modem, with the ability to exfiltrate City information to an unknown location. This could also potentially result in the substantial loss of Confidential and Restricted Information.

Administrative Rule

All requests for analog communication access – into or exiting from City Trusted Networks – require preapproval from the Chief Technology Officer (CTO) or Chief Information Security Officer (SISO).

Procedure

Requesting a Modem Connection

Once approved by a Bureau Director, the individual requesting a modem connection must provide the following information:

1. A clearly detailed business case of why other secure connections available at the City cannot be used
2. The business purpose for which the modem is to be used
3. The software and hardware to be connected to the analog phone line and used across the line
4. To what external connections the requester is seeking access.

The business case must answer, at a minimum, the following questions:

1. What business services will be conducted over the modem?
2. Whether any City Confidential or Restricted Information is transmitted?
3. Why a City equipped desktop computer with Internet access capability is unable to accomplish the same tasks as the proposed modem?

In addition, the requester must be prepared to answer the following supplemental questions related to the security profile of the request:

1. Will the devices that are using the modem be physically disconnected or network segmented from City's internal network?
2. How will the modem be secured? Where will the modem be placed? An office, cubicle, or lab?
3. Is dial-in from outside of the City required? If so, what authentication controls or audit logs are in place to prevent unauthorized remote access?
4. How many modems are being requested, and how many Authorized Users will use them?
5. How often will the modem be used? Once a week, 2 hours per day, etc.?
6. What is the earliest date the modem can be terminated from service as the modem must be removed as soon as it is no longer in use?
7. What means will be used to secure the modem from unauthorized use?
8. What types of protocols will be run over the modem and analog line?

BTS will install approved anti-virus software on the device(s) using the modem.

The requester must submit a service request to the BTS HelpDesk. Guidance and resources are available: <http://www.portlandoregon.gov/bts/60533>

The CTO or SISO will review and rule on all analog modem requests.

References

Please refer to the following BTS resources for term definitions, acronyms, and BTS standards used within BTS Admin Rules:

- 1) BTS Technology Definitions – <https://www.portlandoregon.gov/citycode/article/114449>
- 2) (BTS) Technology Standards Directory (and Acronyms) -- <https://www.portlandoregon.gov/bts/article/44978>
- 3) [City of Portland Information Security Standards](#)

History

Authorized by Ordinance No. 179999 passed by Council March 15, 2006 and effective April 14, 2006.

Revised rule adopted by Chief Administrative Officer of Office of Management and Finance and filed for inclusion in PPD April 17, 2012.

Revised rule adopted by the Chief Administrative Officer of the Office of Management and Finance and filed for inclusion in PPD October 29, 2015.

This rule was reviewed as part of a periodic review and remains unchanged. July 13, 2017.

This rule was reviewed as part of a periodic review. April 30, 2018.

This rule was reviewed and revised as part of a periodic review. September 2, 2019.

This rule was reviewed and revised as part of a periodic review. June 30, 2020.

This rule was reviewed as part of a periodic review. September 1, 2021.