             Definitions of Managed Objects for Drip-Type Heated Beverage
                         Hardware Devices using SMIv2

Status of this Memo

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1. Introduction

   This memo defines an extension to the Management Information Base
   (MIB) for use with network management protocols in the Internet
   community. In particular, it defines objects for the management of
   coffee-brewing and maintenance devices.

2. The SNMPv2 Network Management Framework

   The SNMPv2 Network Management Framework consists of four major
   components. They are:

      o   RFC 1442 [1] which defines the SMI, the mechanisms used for
            describing and naming objects for the purpose of management.

        o   STD 17, RFC 1213 [2] defines MIB-II, the core set of managed
                objects for the Internet suite of protocols.

        o   RFC 1445 [3] which defines the administrative and other
                architectural aspects of the framework.

        o   RFC 1448 [4] which defines the protocol used for network
                access to managed objects.

   The Framework permits new objects to be defined for the purpose of
   experimentation and evaluation.

2.1. Object Definitions

   Managed objects are accessed via a virtual information store, termed
   the Management Information Base or MIB. Objects in the MIB are
   defined using the subset of Abstract Syntax Notation One (ASN.1)
   defined in the SMI. In particular, each object object type is named
   by an OBJECT IDENTIFIER, an administratively assigned name. The
   object type together with an object instance serves to uniquely
   identify a specific instantiation of the object. For human
   convenience, we often use a textual string, termed the descriptor, to
   refer to the object type.

3. Overview

   The COFFEE POT MIB applies to managed devices that brew, store, and
   deliver heated coffee beverages. The COFFEE POT MIB is mandatory for
   all systems that have such a hardware port supporting services
   managed through some other MIB.

   The MIB contains objects that relate to physical connections,
   configuration, storage levels, availabilty, quality of service, and
   availability.

3.1. Relationship to Interface MIB

   The COFFEE-POT-MIB is one of many MIBs designed for layered use as
   described in the Interface MIB [5]. In most implementations where it
   is present, it will be in the lowest interface sublayer, that is, the
   COFFEE-POT-MIB represents the physical layer, providing service to
   higher layers such as the Character MIB [6].

   Although it is unlikely that a coffee port will actually be used as a
   network interface, which is the intent of the Interface MIB, the
   COFFEE-POT-MIB is closely connected to the Character MIB, which can
   share hardware interfaces with network operation, and relate to the
   RS-232 MIB [7].

The Interface MIB's ifTestTable and ifRcvAddressTable are not
relevant to the COFFEE-POT-MIB.

The COFFEE-POT-MIB is relevant for ifType values sip(31), and perhaps
others.

The COFFEE-POT-MIB requires the conformance groups ifGeneralGroup,
and ifFixedLengthGroup.

Usefulness of error counters in this MIB depends on the octet
counters in ifFixedLengthGroup.

4. Definitions

```
COFFEE-POT-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY, OBJECT-TYPE, NOTIFICATION-TYPE,
    TimeStamp, TimeInterval,
    Counter32, Integer32
        FROM SNMPv2-SMI
    InterfaceIndex
        FROM IF-MIB
    transmission
        FROM RFC1213-MIB
    MODULE-COMPLIANCE, OBJECT-GROUP
        FROM SNMPv2-CONF;

coffee MODULE-IDENTITY
    LAST-UPDATED "9803231700Z"
    ORGANIZATION "Networked Appliance Management Working Group"

    CONTACT-INFO
            "       Michael Slavitch
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                    955 Green Valley Crescent
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               Tel: 613-723-7505
               Fax: 613-723-7209
            E-mail: slavitch@loran.com"
    DESCRIPTION
            "The MIB Module for coffee vending devices."
    ::= { transmission 132 }

potName OBJECT-TYPE
    SYNTAX    DisplayString (SIZE (0..255))
    MAX-ACCESS read-only
```

```
        STATUS  current
        DESCRIPTION
                "The vendor description of the pot under management"
        ::= { coffee 1 }


    potCapacity OBJECT-TYPE
        SYNTAX Integer32
        MAX-ACCESS read-only
        STATUS  current
        DESCRIPTION
          "The number of units of beverage supported by this device
           (regardless of its current state) ."
        ::= { coffee 2 }


    potType OBJECT-TYPE
        SYNTAX      INTEGER {
           automatic-drip(1),
           percolator(2),
           french-press(3),
           espresso(4),
           }
        MAX-ACCESS read-write
        STATUS  current
        DESCRIPTION
                "The brew type of the coffee pot."
        ::= { coffee 3 }

    potLocation OBJECT-TYPE {
        SYNTAX      DisplayString (SIZE (0..255))
        MAX-ACCESS read-write
        STATUS  current
        DESCRIPTION
                "The physical location of the pot in question"
        ::= { coffee 4 }


    potMonitor              OBJECT IDENTIFIER ::= { coffee 6 }


    potOperStatus
        SYNTAX      Integer {
                        off(1),
                        brewing(2),
                        holding(3),
                        other(4),
                        waiting(5)
```

```
                             }
        MAX-ACCESS read-only
        STATUS current
        DESCRIPTION
                "The operating status of the pot in question. Note
                 that this is a read-only feature. Current hardware
                 prevents us from changing the port state via SNMP."
        ::= { potMonitor 1 }

    potLevel OBJECT-TYPE
        SYNTAX      Integer32
        MAX-ACCESS read-only
        STATUS current
        DESCRIPTION
                "The number of units of coffee under management. The
                 units of level are defined in potMetric below."
        ::= { potMonitor 2 }

    potMetric   OBJECT-TYPE
        SYNTAX      Integer {
                     espresso(1),
                     demi-tasse(2),
                     cup(3),
                     mug(4),
                     bucket(5)
                     }
        MAX-ACCESS read-only
        STATUS current
        DESCRIPTION
                "The vendor description of the pot under management"
        ::= { potMonitor 3 }


    potStartTime OBJECT-TYPE
        SYNTAX      Integer64
        MAX-ACCESS read-write
        STATUS      current
        DESCRIPTION
                "The time in seconds since Jan 1 1970 to start the pot
                 if and only if potOperStatus is waiting(5)"
        ::= { potMonitor 4 }


    lastStartTime OBJECT-TYPE
        SYNTAX      TimeInterval
        MAX-ACCESS read-only
        STATUS      current
        DESCRIPTION
```

```
                 "The amount of time, in TimeTicks, since the coffee
                 making process was initiated."
            ::= { potMonitor 5 }


      potTemperature OBJECT-TYPE
          SYNTAX      Integer32
          UNITS       "degrees Centigrade"
          MAX-ACCESS  read-only
          STATUS      current
          DESCRIPTION
                 "The ambient temperature of the coffee within the pot"

          ::= { potMonitor 6 }

      END
```

5. Acknowledgements

    Networked Appliance Management Working Group (not) of the IETF.

6. References

    [1] Case, J., McCloghrie, K., Rose, M., and S. Waldbusser, "Structure
        of Management Information for version 2 of the Simple Network
        Management Protocol (SNMPv2)", RFC 1442, April 1993.

    [2] McCloghrie, K., and M. Rose, Editors, "Management Information
        Base for Network Management of TCP/IP-based internets: MIB-II",
        STD 17, RFC 1213, March 1991.

    [3] Galvin, J., and K. McCloghrie, "Administrative Model for version
        2 of the Simple Network Management Protocol (SNMPv2)", RFC 1445,
        April 1993.

    [4] Case, J., McCloghrie, K., Rose, M., and S. Waldbusser, "Protocol
        Operations for version 2 of the Simple Network Management
        Protocol (SNMPv2)", RFC 1448, April 1993.

    [5] McCloghrie, K., and F. Kastenholz, "Evolution of the Interfaces
        Group of MIB-II", RFC 1573, January 1994.

    [6] Valdez, Juan, "Definitions of Columbian Objects for Coffee Pot
        Devices using SMIv2", Columbia, Inc., March 1998.

7. Security Considerations

    Security issues are not discussed in this memo.

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