

The Marway Agent Capabilities MIB

Status of this Memo

This document specifies a proprietary MIB module of Marway Power Solutions.

Distribution of this memo is limited to Marway product licensees and other interested parties having express written consent from Marway Power Solutions.

The current set of Marway Enterprise MIB modules may be requested by sending an email to support@marway.com, or visiting the web page <http://www.marway.com/software>.

Copyright Notice

Copyright (C) 2017 Marway Power Solutions.
All Rights Reserved; use is subject to license terms.

Abstract

This memo defines agent identities, used to identify Marway SNMP agents, and agent capabilities, used to convey the capabilities of Marway SNMP Agents.

Table of Contents

- 1. Introduction.....3
- 2. The Internet-Standard SNMP Management Framework.....3
- 3. Conventions.....3
- 4. Overview of the Marway Agent Capabilities MIB Module.....3
 - 4.1 Agent Identities.....3
 - 4.2 AGENT-CAPABILITIES statements.....4
- 5. Definitions.....5
- 6. Acknowledgments.....11
- 7. Security Considerations.....11
- 8. References.....11
 - 8.1 Normative References.....11
 - 8.2 Informative References.....11
- Change Log.....12
- Full Copyright Statement.....13
- Intellectual Property Statement.....13
- Trademarks.....13

1. Introduction

This memo defines agent identities, used to identify Marway SNMP agents, and agent capabilities, used to convey the capabilities of Marway SNMP Agents.

2. The Internet-Standard SNMP Management Framework

For a detailed overview of the documents that describe the current Internet-Standard Management Framework, please refer to section 7 of RFC 3410 [RFC3410].

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. MIB objects are generally accessed through the Simple Network Management Protocol (SNMP).

Objects in the MIB are defined using the mechanisms defined in the Structure of Management Information (SMI). This memo specifies a MIB module that is compliant to the SMIV2, which is described in STD 58, RFC 2578 [RFC2578], STD 58, RFC 2579 [RFC2579] and STD 58, RFC 2580 [RFC2580].

3. Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

4. Overview of the Marway Agent Capabilities MIB Module

This MIB module contains OBJECT-IDENTITY definitions used to identify Marway SNMP agents and contains AGENT-CAPABILITIES statements used to express the capabilities of Marway SNMP agents.

Each set of definitions is described in the following sections.

4.1 Agent Identities

The identity of a Marway SNMP agent is exposed as the value of the sysObjectID object. For additional information about the definition of sysObjectID, see the SNMPv2-MIB [RFC 3418].

Marway agent identities are defined within the Marway agentIds subtree.

Examples of sysObjectID values retrieved from a Marway SNMP agent by a management application include the following:

```
sysObjectID.0 = marwayRcmPowerDistributionAgent
```

4.2 AGENT-CAPABILITIES statements

The capabilities of a Marway SNMP agent are exposed as a set of values in the sysORTable. For additional information about the object definitions comprising the sysORTable, see the SNMPv2-MIB [RFC 3418].

Marway agent capabilities are defined within the Marway agentCaps subtree.

Refer to section 6, "Mapping of the AGENT-CAPABILITIES macro" in RFC 2580, "Conformance Statements for SMIV2" [RFC2580] for further information on the use of agent capabilities statements by management application and SNMP agents.

Examples of values exposed in the sysORTable follow:

```
sysORID.1      = marwayCapsBase1
sysORDescr.1   = "The Base Agent Capabilities statement for Marway
                 SNMP Agents"
sysORUpTime.1 = 43

sysORID.2      = marwayCapsEnvSensorMonitor
sysORDescr.2   = "Support for the environmental sensor monitoring
                 feature."
sysORUpTime.1 = 43

sysORID.2      = marwayCapsCurrentMonitor
sysORDescr.2   = "Marway power entities with support for the current
                 monitoring feature."
sysORUpTime.1 = 58
```

5. Definitions

```
MARWAY-AGENT-CAPS-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY, OBJECT-IDENTITY
        FROM SNMPv2-SMI          -- [RFC2578]
    AGENT-CAPABILITIES
        FROM SNMPv2-CONF        -- [RFC2580]
    agentIdents, agentCaps, marwayMibs
        FROM MARWAY-SMI-MIB;    -- [MAR-SMI]

marwayAgentCapsMib MODULE-IDENTITY
    LAST-UPDATED "201704100000Z"    -- 10 April 2017, midnight
    ORGANIZATION "Marway Power Solutions"
    CONTACT-INFO
        "Marway Power Solutions
        1721 S. Grand Avenue
        Santa Ana, California 92705
        USA

        Telephone:  +1 714 917 6200
        EMail:       support@marway.com
        URL:         http://www.marway.com

        Send comments to <support@marway.com>
        "
    DESCRIPTION
        "This MIB module defines agent identities, used to identify
        Marway SNMP agents, and agent capabilities, used to convey
        the capabilities of Marway SNMP Agents.

        Copyright (C) 2017 Marway Power Solutions.  All rights
        reserved. Use is subject to license terms.

        This version of the MARWAY-AGENT-CAPS-MIB module is part of
        Marway publication, `The Marway Agent Capabilities MIB',
        April 2017. See the publication itself for full legal
        notices.
        "

-- Revision log
REVISION      "201704100000Z"    -- 10 April 2017, midnight
DESCRIPTION
    "Initial version, as part of Marway publication
    `The Marway SMI MIB', April 2017.
    "
 ::= { marwayMibs 3 }
```

```

--
-- Agent Identities
--

marwayRcmPowerDistributionAgent OBJECT-IDENTITY
    STATUS      current
    DESCRIPTION
        "The SNMP agent identity for 'The Marway RCM Power
        Distribution Agent' systems.

        This value is exposed by the sysObjectID object.
        "
    ::= { agentIdents 1 }

--
-- Agent Capabilities
--

marwayCapsBase1 AGENT-CAPABILITIES
    PRODUCT-RELEASE
        "Marway Base Capabilities 1.
        "
    STATUS current
    DESCRIPTION
        "The Base Agent Capabilities statement for Marway SNMP
        Agents
        "

    SUPPORTS ENTITY-MIB
        INCLUDES {
            entityPhysicalGroup,
            entityPhysical2Group,
            entityPhysical3Group,
            entityGeneralGroup,
            entityNotificationsGroup,
            entityMappingGroup
        }

        VARIATION      entPhysicalSerialNum
        ACCESS         read-write
        DESCRIPTION   "Write access is only supported for
                    for entities having an entPhysical
                    class of chassis(3).

                    Any attempt to set a value longer than
                    30 octets will receive a response with
                    an error-status of wrongLength(8)."
```

```

VARIATION      entPhysicalAssetID
ACCESS         read-write
DESCRIPTION    "Write access is only supported for
               for entities having an entPhysical
               class of chassis(3).

               Any attempt to set a value longer than
               30 octets will receive a response with
               an error-status of wrongLength(8)."
```

```

VARIATION      entPhysicalAlias
ACCESS         read-write
DESCRIPTION    "Any attempt to set a value longer than
               30 octets will receive a response with
```

```

VARIATION      entPhysicalUris
ACCESS         not-implemented
DESCRIPTION    "not applicable."
```

```

SUPPORTS MARWAY-CHASSIS-MIB
INCLUDES {
    mChassisObjectGroup,
    mChassisNotifyObjectGroup,
    mChassisNotificationGroup
}
```

```

SUPPORTS MARWAY-POWER-MIB
INCLUDES {
    mPowerBasicObjectGroup
}
```

```
::= { agentCaps 1 }
```

```

marwayCapsEnvSensorMonitor AGENT-CAPABILITIES
PRODUCT-RELEASE
    "Sensor Monitoring feature version 1.0
    "
STATUS current
DESCRIPTION
    "Marway power entities with support for the
    environmental sensor monitoring feature.
    "
```

```

SUPPORTS MARWAY-SENSOR-MIB
INCLUDES {
    mSensorObjectGroup,
    mSensorNotificationGroup
}
```

```
::= { agentCaps 2 }
```

```
marwayCapsCurrentMonitor AGENT-CAPABILITIES
  PRODUCT-RELEASE
    "Current Monitoring feature version 1.0
    "
  STATUS current
  DESCRIPTION
    "Marway power entities with support for the current
    monitoring feature.
    "

  SUPPORTS MARWAY-POWER-MIB
    INCLUDES {
      mPowerCurrentMonitorObjectGroup
    }

  ::= { agentCaps 3 }

marwayCapsPowerMonitor AGENT-CAPABILITIES
  PRODUCT-RELEASE
    "Power Monitor feature version 1.0
    "
  STATUS current
  DESCRIPTION
    "Marway power entities with support for the power
    monitor feature.
    "

  SUPPORTS MARWAY-POWER-MIB
    INCLUDES {
      mPowerPowerMonitorObjectGroup
    }

  ::= { agentCaps 4 }

marwayCapsEnergyMonitor AGENT-CAPABILITIES
  PRODUCT-RELEASE
    "Energy Monitor feature version 1.0
    "
  STATUS current
  DESCRIPTION
    "Marway power entities with support for the energy
    monitor feature.
    "

  SUPPORTS MARWAY-POWER-MIB
    INCLUDES {
      mPowerEnergyMonitorObjectGroup
    }

  ::= { agentCaps 5 }
```



```
marwayCapsPowerSetpoint AGENT-CAPABILITIES
  PRODUCT-RELEASE
    "Power Setpoint feature version 1.0
    "
  STATUS current
  DESCRIPTION
    "Marway power entities with support for the power
    setpoint feature.
    "

  SUPPORTS MARWAY-POWER-MIB
    INCLUDES {
      mPowerSetpointObjectGroup,
      mPowerSetpointNotificationGroup
    }

  ::= { agentCaps 6 }

marwayCapsRemoteSwitching AGENT-CAPABILITIES
  PRODUCT-RELEASE
    "Remote Switching feature version 1.0
    "
  STATUS current
  DESCRIPTION
    "Marway power entities with support for the remote
    switching feature.
    "

  SUPPORTS MARWAY-POWER-MIB
    INCLUDES {
      mPowerSwitchObjectGroup,
      mPowerSwitchNotificationGroup
    }

  ::= { agentCaps 7 }

marwayCapsSystemGroup AGENT-CAPABILITIES
  PRODUCT-RELEASE
    "System group feature version 1.0
    "
  STATUS current
  DESCRIPTION
    "Marway power entities with limited support of the
    system group of scalars defined in the SNMPv2-MIB and
    published in RFC 3418.
    "

  SUPPORTS SNMPv2-MIB
    INCLUDES {
      systemGroup
    }
```

```

VARIATION      sysContact
ACCESS         read-write
DESCRIPTION    "Any attempt to set a value longer than
               30 octets will receive a response with
               an error-status of noError(0).

               However, due to limited resources, the
               stored value will be truncated to the
               first 30 octets"

VARIATION      sysName
ACCESS         read-write
DESCRIPTION    "Any attempt to set a value longer than
               30 octets will receive a response with
               an error-status of noError(0).

               However, due to limited resources, the
               stored value will be truncated to the
               first 30 octets"

VARIATION      sysLocation
ACCESS         read-write
DESCRIPTION    "Any attempt to set a value longer than
               30 octets will receive a response with
               an error-status of noError(0).

               However, due to limited resources, the
               stored value will be truncated to the
               first 30 octets"

VARIATION      sysORID
ACCESS         not-implemented
DESCRIPTION    "not supported"

VARIATION      sysORUpTime
ACCESS         not-implemented
DESCRIPTION    "not supported"

VARIATION      sysORDescr
ACCESS         not-implemented
DESCRIPTION    "not supported"
 ::= { agentCaps 8 }

```

END

6. Acknowledgments

The production and maintenance of this memo is a group effort of the Marway development team.

7. Security Considerations

This module does not define any management objects. Instead, it defines OID values representing Agent Identities and Agent Capabilities.

Meaningful security considerations can only be written in MIB modules that define management objects. Therefore, this module does not present any known security concerns.

8. References

8.1 Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.
- [RFC2578] McCloghrie, K., Perkins, D., Schoenwaelder, J., Case, J., Rose, M., and S. Waldbusser, "Structure of Management Information Version 2 (SMIV2)", STD 58, RFC 2578, April 1999.
- [RFC2579] McCloghrie, K., Perkins, D., Schoenwaelder, J., Case, J., Rose, M., and S. Waldbusser, "Textual Conventions for SMIV2", STD 58, RFC 2579, April 1999.
- [RFC2580] McCloghrie, K., Perkins, D., Schoenwaelder, J., Case, J., Rose, M., and S. Waldbusser, "Conformance Statements for SMIV2", STD 58, RFC 2580, April 1999.
- [MAR-SMI] Marway Power Solutions, "The Marway Structure of Management Information (SMI)", April 2017.

8.2 Informative References

- [RFC3410] Case, J., Mundy, R., Partain, D., and B. Stewart, "Introduction and Applicability Statements for Internet-Standard Network Management Framework", RFC 3410, December, 2002.

Change Log

Changes introduced in revision "20170410000Z", 10 April 2017
- initial version

Full Copyright Statement

Copyright (C) 2017 Marway Power Solutions.
All rights reserved. Use is subject to license terms.

This document may not be modified other than to extract section 5, Definitions, as-is for separate use, and derivative works of it may not be created, except to translate it into languages other than English.

The limited permissions granted above coincide with the terms of the applicable Marway product license, or terms explicitly stated in the express written consent of Marway Power Solutions, 1721 S. Grand Avenue, Santa Ana, California 92705, USA.

The information in this document is subject to change without notice and is provided on an "AS IS" basis. Marway Power Solutions makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Intellectual Property Statement

The entire contents of this document and any software it describes constitute intellectual property solely owned by Marway Power Solutions.

Trademarks

Trademarks of Marway Power Solutions include, but are not limited to, mPower, Optima, and TwinPower.

Other trademarks, marks, names, or product names referenced in this publication are the property of their respective owners, and Marway Power Solutions neither endorses nor sponsors any such products or services referred to herein.