Abstract

This document defines a YANG data model for SAVI.

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1. Introduction

IETF netmod WG has developed a general data model for NETCONT protocol, YANG data model [RFC6020].

This document defines a YANG data model for the configuration and management of SAVI. With this model, the operators can configure and manage the devices by using NETCONF.
2. Convention and Terminology

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].
3. Design of the Data Model

module: ietf-savi
    +-rw savi
        +-rw global
            |  +-rw ip-version               uint8
            |  +-rw enable                   boolean
            |  +-rw arrange-mode?            uint8
            |  +-rw max-dad-delay?           uint16
            |  +-rw max-dad-prepare-delay?   uint16
            |  +-rw max-ns-delay?            uint16
            |  +-rw dhcp-only                boolean
        +-rw interface
            |  +-rw interface* [index]
                |     +-rw index                uint32
                |     +-rw interface-name       string
                |     +-rw enable               boolean
                |     +-rw validation-status    uint8
                |     +-rw filtering-number     uint8
            +-rw binding
                |  +-rw binding-info* [ip-addr]
                    |     +-rw ip-addr            inet:ipv6-address
                    |     +-rw interface-index     uint32
                    |     +-rw ip-addr-type        uint8
                    |     +-rw type               uint8
                    |     +-rw mac-addr           yang:mac-address
                    |     +-rw status             uint8
                    |     +-rw lifetime           uint32
                    |     +-rw row-status         uint8
            +-rw filtering
                |  +-rw filtering-info* [interface-index]
                    |     +-rw ip-addr?            inet:ipv6-address
                    |     +-rw interface-index     uint32
                    |     +-rw ip-addr-type        uint8
                    |     +-rw mac-addr           yang:mac-address
4. SAVI YANG Model

This module imports typedefs from [RFC6991].

```yang
<CODE BEGINS> file "ietf-savi@2015-12-24.yang"

module ietf-savi {
    namespace "urn:ietf:params:xml:ns:yang:ietf-savi";
    prefix "savi";

    import ietf-interfaces {
        prefix "if";
    }

    import ietf-inet-types {
        prefix "inet";
    }

    import ietf-yang-types {
        prefix yang;
    }

    organization "IETF SAVI Working Group";
    contact "
        Editor: Wei Meng
        <mailto:meng.wei2@zte.com.cn>
        Editor: Cui Wang
        <mailto:wang.cui1@zte.com.cn>
    ";
    description "The YANG module defines a generic configuration model for SAVI";

    revision 2015-12-24 {
        description "01 revision.";
        reference "draft-meng-savi-yang-01";
    }

    revision 2015-07-06 {
        description "Initial revision";
        reference "draft-meng-savi-yang-00";
    }

    /* Configuration Data */

    container savi {
```
description 'Configure SAVI parameters.';

container global{
  leaf ip-version {
    type uint8;
    mandatory true;
    description 'IP Version.';
  }
  leaf enable {
    type boolean;
    mandatory true;
    description 'Enable.';
  }
  leaf arrange-mode {
    type uint8;
    description 'Arrange mode.';
  }
  leaf max-dad-delay {
    type uint16 {
      range 1..4094 {
        description 'The value of delay time, it must between 1 to 409' + '4.';
      }
    }
    description 'Max DAD delay time.';
  }
  leaf max-dad-prepare-delay {
    type uint16 {
      range 1..4094 {
        description 'The value of delay time, it must between 1 to 409' + '4.';
      }
    }
    description 'Max DAD prepare delay time.';
  }
  leaf max-ns-delay {
    type uint16 {
      range 1..4094 {
        description 'The value of delay time, it must between 1 to 409' + '4.';
      }
    }
    description 'Max NS delay time.';
  }
  leaf dhcp-only {
}
type boolean;
  mandatory true;
  description 'DHCP ONLY.';
}
description 'Global configuration.';
}
container interface {
  list interface {
    key index;
    leaf index {
      type uint32 {
        range 1..16777215 {
          description 'The value of index, it must between 1 to 16777215.';
        }
      }
    }
    description 'Interface index.';
  }
  leaf interface-name {
    type string;
    mandatory true;
    description 'Interface name.';
  }
  leaf enable {
    type boolean;
    mandatory true;
    description 'Enable.';
  }
  leaf validation-status {
    type uint8;
    mandatory true;
    description 'Validation status.';
  }
  leaf filting-number {
    type uint8;
    mandatory true;
    description 'Filting number.';
  }
  description 'Interface.';

container binding {
  list binding-info {
    key ip-addr;
    leaf ip-addr {
      type inet:ipv6-address;
description 'IP address.';
}
leaf interface-index {
  type uint32;
  mandatory true;
  description 'Interface index.';
}
leaf ip-addr-type {
  type uint8;
  mandatory true;
  description 'IP Address type.';
}
leaf type {
  type uint8;
  mandatory true;
  description 'Binding type.';
}
leaf mac-addr {
  type yang:mac-address;
  mandatory true;
  description 'Mac Address.';
}
leaf status {
  type uint8;
  mandatory true;
  description 'The status of binding information.';
}
leaf lifetime {
  type uint32;
  mandatory true;
  description 'The lifetime of binding information.';
}
leaf row-status {
  type uint8;
  mandatory true;
  description 'The row status of binding information.';
}
description 'Binding information.';
}

container filtering {
  list filtering-info {
    key interface-index;
    leaf ip-addr {
      type inet:ipv6-address;
      description 'IP address.';
    }
  }
}
leaf interface-index {
    type uint32;
    mandatory true;
    description 'Interface index.';
}

leaf ip-addr-type {
    type uint8;
    mandatory true;
    description 'IP Address type.';
}

leaf mac-addr {
    type yang:mac-address;
    mandatory true;
    description 'Mac address.';
    description 'Filtering information.';
}

<CODE ENDS>
5. Security Considerations

This document has no additional security considerations.
6. Acknowledgements
7. Normative References


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