# Autonomic Addressing
## draft-behringer-anima-autonomic-addressing-02.txt

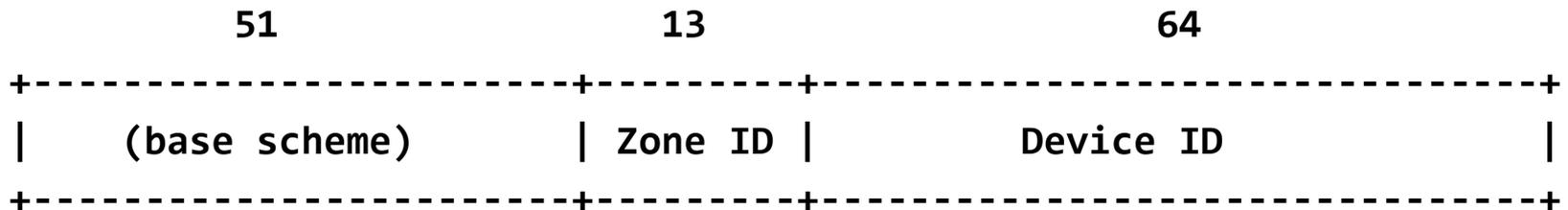## 94$^{rd}$ IETF, 2 Nov 2015
## Michael Behringer

# Addressing – Various points

- **Fundamental idea: "self-management"**
- **An Autonomic Node gets an address.**
  - **ASAs do NOT get addresses.**
  - **Autonomic nodes multiplex ASAs.**
- **Non-autonomic nodes do not get autonomic address**
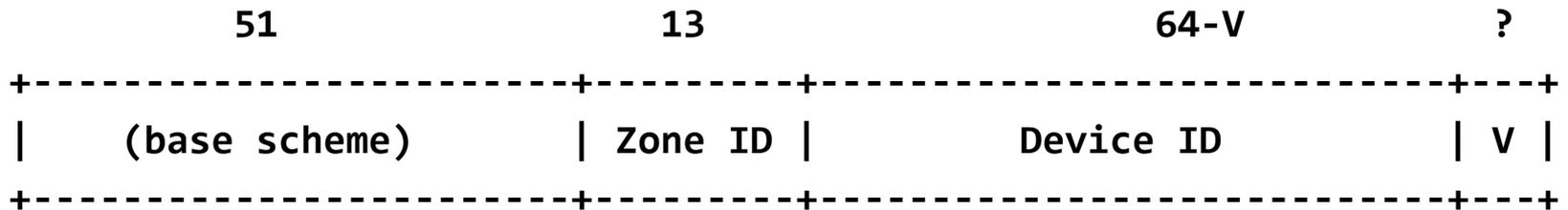
# Addressing – Base Scheme

- **Base Scheme:**

```
  8        40              3                          77

 +--+--------------+------+---------------------------------------+
 |FD| hash(domain) | Type |            (sub-scheme)               |
 +--+--------------+------+---------------------------------------+
```

- **Hash(domain) provides pseudo-random prefix, as required by RFC4193 (ULA)**

- **Operational view: Admin specifies domain name only, nothing else needed for addressing to work!**

- Do we agree so far?
- Comments? Concerns?

# Addressing – Sub-Scheme 1

> • Needs discussion

- **Sub-Scheme 1:**

```
       51                      13                      64
+------------------------+--------+------------------------------+
|     (base scheme)      | Zone ID |         Device ID          |
+------------------------+--------+------------------------------+
```

- **Registrar assigns device ID**
  - **It is unique for a device in a domain**
  - **It does NOT specify a locator, but an identifier**
  - **Device ID does not change in the lifetime of a device**
- **Zone-ID initially zero.**
  - **When aggregation is required, use a zone-ID <> 0**

# Addressing – Sub-Scheme 2

- **Sub-Scheme 2:**

```
        51                      13                      64-V              ?
+-----------------------+---------+---------------------------+---+
|     (base scheme)     | Zone ID |         Device ID         | V |
+-----------------------+---------+---------------------------+---+
```

- **Add "Virtualisation" bits at the end**
  - **Allow addressing various virtual machines on a single node**
- **Keep routing simpler:**
  - **Node announces not a /128, but for example /127**

- Needs discussion

# Summary

- **Need discussion, feedback**
- **Can we agree on the base scheme?**
- **Do we want one or more sub-schemes initially?**
  - **Starting point: one for now**
- **Other sub-schemes?**

- **This is really part of the ACP**
- **Handled separately for now**
- **Should this become a working group draft?**