

# sa46t and sa46t-as

**Stateless Automatic IPv4 over IPv6 Tunneling**

**sa46t with IPv4 Address Sharing**

**draft-matsuhira-sa46t-spec-01.txt**

**draft-matsuhira-sa46t-as-00.txt**

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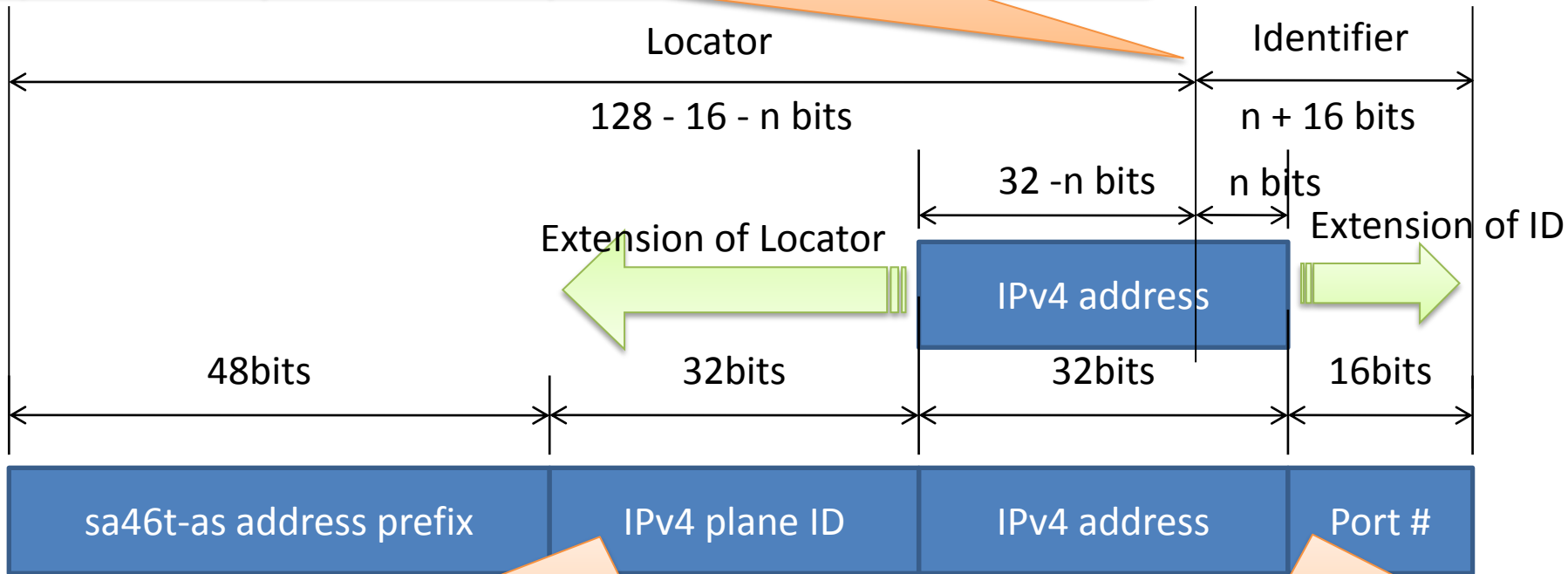
# Problem statement

- (1) Tunnel Configuration scalability
  - existing:  $N(N-1)$  configuration needed (square)
  - sa46t: only  $N$  configuration enough (linear)
- (2) Redundancy of tunnel endpoint
  - existing: no redundancy
  - sa46t: can provide redundancy
- (3) Solution for smooth transition from IPv4 address running out stage to IPv6 deployment
  - existing: no support
  - sa46t: IPv4 private address reuse / stacking in global space
  - sa46t-as: IPv4 global address sharing

# sa46t-as architecture

Remain Locater - Identifier relation between IPv4 and IPv6

- (1) Scalable Tunnel Configuration
- (2) Redundancy of Tunnel Endpoint



IPv4 network plane ID

(3-1) Private Address Reuse (Stacking)

Port #

(3-2) Global Address Sharing

sa46t is implemented, and tested at WIDE camp in this September, work fine  
Tested with 275 clients, in 4.5 days, and >230 million IPv4 packet encapsulated by sa46t