Simplified Local internet nUmber Resource Management (SLURM)

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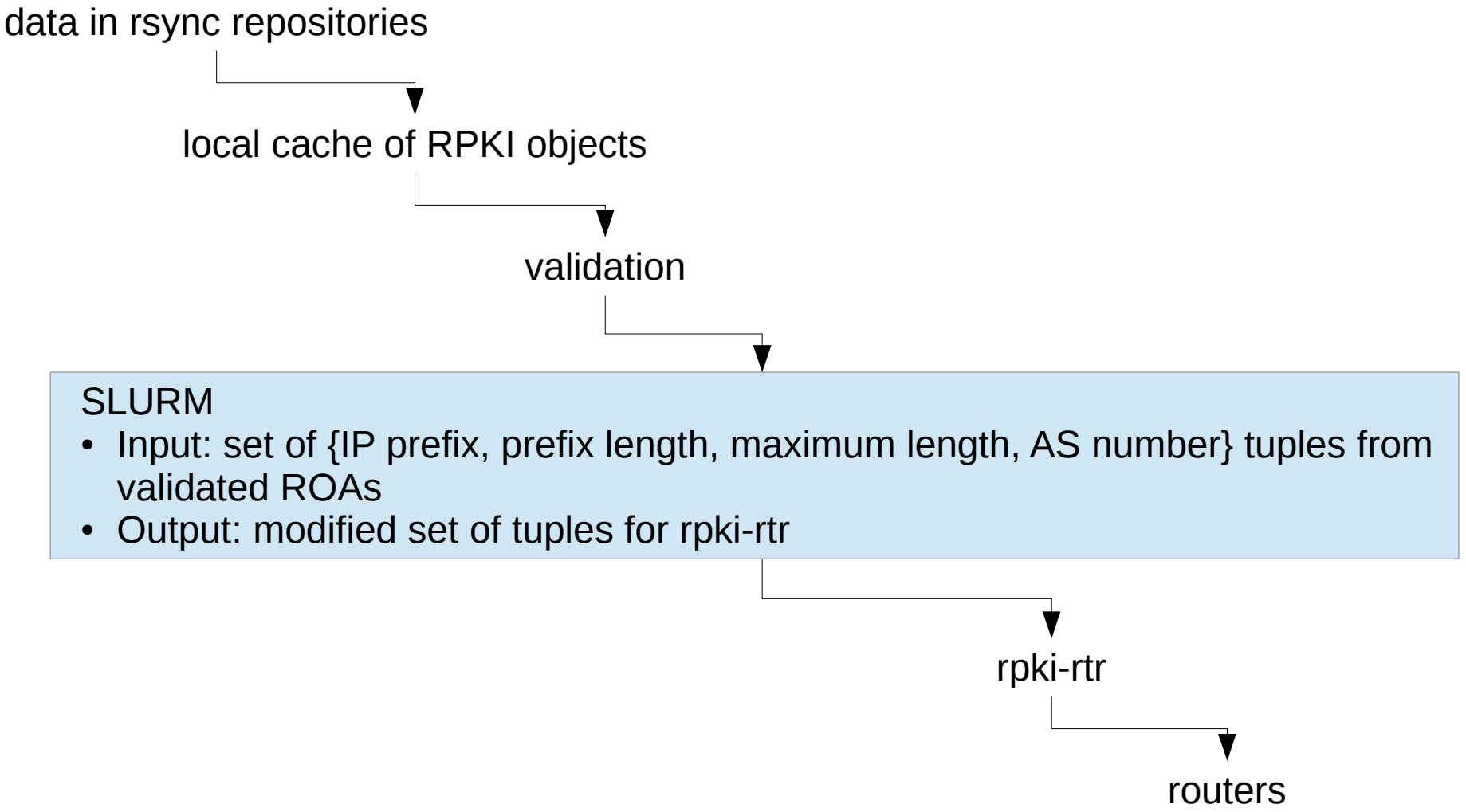
Use Case

- Local, local, local:
  - Local management
  - of locally reserved (private) INRs
  - for locally operated routers.
- draft-ymbk-lta-use-cases-00:
  - “Bob has a multi-AS network under his administration and some of those ASs use private ([RFC1918]) or 'borrowed' US military space, and he wishes to certify them for use in his internal routing.”

Position in the Relying Party Stack



Components

- Validation Output Filtering: Ignore the global RPKI's assertions about locally-reserved INRs.
- Locally Adding Assertions: Add additional assertions about locally-reserved INRs.
- SLURM File: configuration file for SLURM.

Validation Output Filtering

- User configures a set of INRs to filter (in the SLURM File)
- Any assertion (from a ROA) where the prefix overlaps the above set is not included in the output set of tuples

Locally Adding Assertions

- User configures a set of additional INR assertions (in the SLURM File)
- These additional INR assertions are added to the output set of tuples

SLURM File

- Standardized configuration file allows multiple relying party implementations (within an administrative domain) to share SLURM configuration
- Specified in Augmented Backus-Naur Form (ABNF):

```
SLURMFile = header *line
header = %x53.4c.55.52.4d SP "1.0" CRLF ; "SLURM 1.0"
line =  *WSP [comment] CRLF
      / *WSP command [ 1*WSP [comment] ] CRLF
comment = "#" *(VCHAR / WSP)
command = add / del
add = %x61.64.64 1*WSP IPprefixMaxLen 1*WSP ASnum
del = %x64.65.6c 1*WSP inr
inr = IPprefix / ASnum
IPprefix = IPv4prefix / IPv6prefix
IPprefixMaxLen = IPv4prefixMaxLen / IPv6prefixMaxLen
IPv4prefix = IPv4address "/" 1*2DIGIT
IPv6prefix = IPv6address "/" 1*3DIGIT
IPv4prefixMaxLen = IPv4prefix ["-" 1*2DIGIT]
IPv6prefixMaxLen = IPv6prefix ["-" 1*3DIGIT]
```

Example SLURM File

```
SLURM 1.0

# Reserve 192.0.2.0/24 and 2001:DB8::/32 for local use.
del 192.0.2.0/24
del 2001:DB8::/32

# Allow 65536 and 65537 to originate routes to 192.0.2.0/24.
add 192.0.2.0/24 65536
add 192.0.2.0/24 65537

add 2001:DB8::/48-52 65536 # 65536 originates 2001:DB8::/48 and
                           # sub-prefixes down to length 52.
add 2001:DB8:0:42::/64 65537 # However, 65537 originates
                             # 2001:DB8:0:42::/64.
add 2001:DB8:1::/48 65537 # 65537 also originates 2001:DB8:1::/48
```

Questions?