RPKIMonitor Summary

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1 Resource PKI (RPKI) Monitor

One common method of employing RPKI information in BGP origin validation is to use the RPKI-RTR protocol (RFC6810, "The Resource Public Key Infrastructure (RPKI) to Router Protocol", http://datatracker.ietf.org/doc/rfc6910/) to retrieve RPKI authorized information from an RPKI cache. This protocol relieves the router of the need to maintain synchronization with the global RPKI repositories, and from the need to perform any of the cryptographic verification of the RPKI objects.

Operators need a way to monitor the status of the RPKI-RTR protocol, both at the router (client) end and the RPKI cache (server) end.

This tool provides a web interface for monitoring the RPKI-RTR cache's and client information on a network. This package is Perl based. It gathers information from the RPKI-RTR clients using SNMP to get data from the RPKI-RTR-MIB (RFC6945, "Definitions of Managed Objects for the Resource Public Key Infrastructure (RPKI) to Router Protocol", http://datatracker.ietf.org/doc/rfc6945/). It gathers data from the Rcynic RPKI-RTR cache (http://rpki.net/wiki/doc/RPKI/RP/rcynic).

1.1 Client Monitor

The RPKI Monitor uses the MIB defined for the client end of the RPKI-RTR protocol (RFC6945). RPKIMonitor retrieves the MIB information and displays it in a web browser.

Figure 1 shows a typical display of a router's client end of an RPKI-RTR connection.

RPKIMonitor presently supports snmpv2c to monitor the MIB.

1.2 Cache Monitor

There is no MIB defined for the cache end of the RPKI-RTR protocol. Each implementation has its own unique set of information available and how and where it is accessible.

The RPKIMonitor supports monitoring the information of the cache end for the rpki.net implementation of RPKI-RTR.

Figure 2 shows the information monitored for the rpki.net implementation. Statistics, errors, and data sources are displayed.

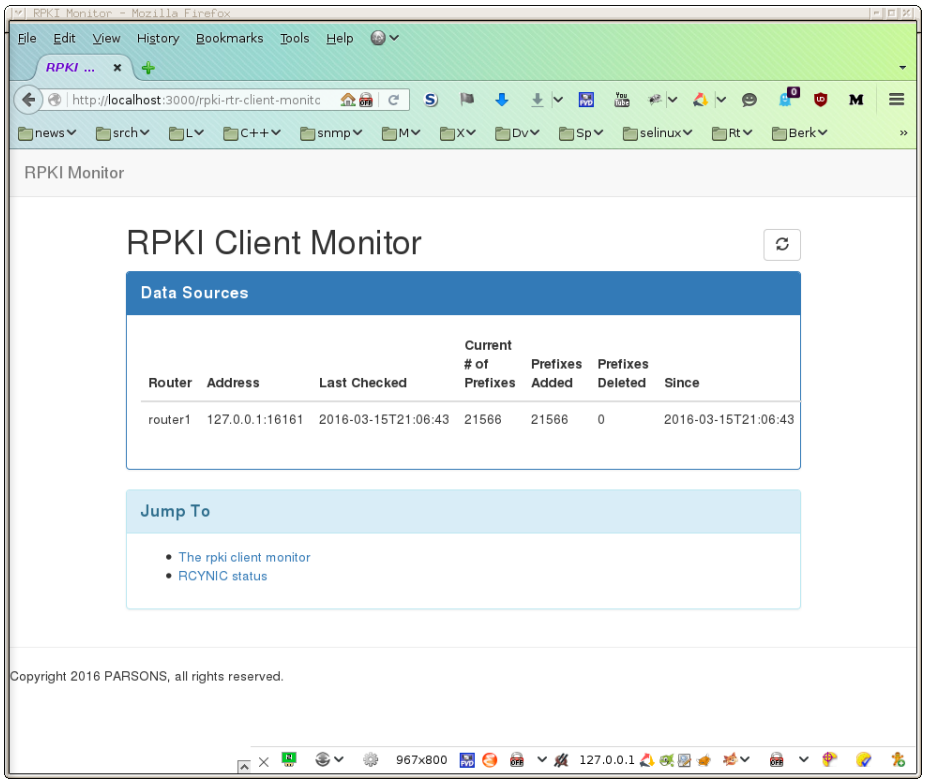

Figure 1: RPKIMonitor Router (Client) Display

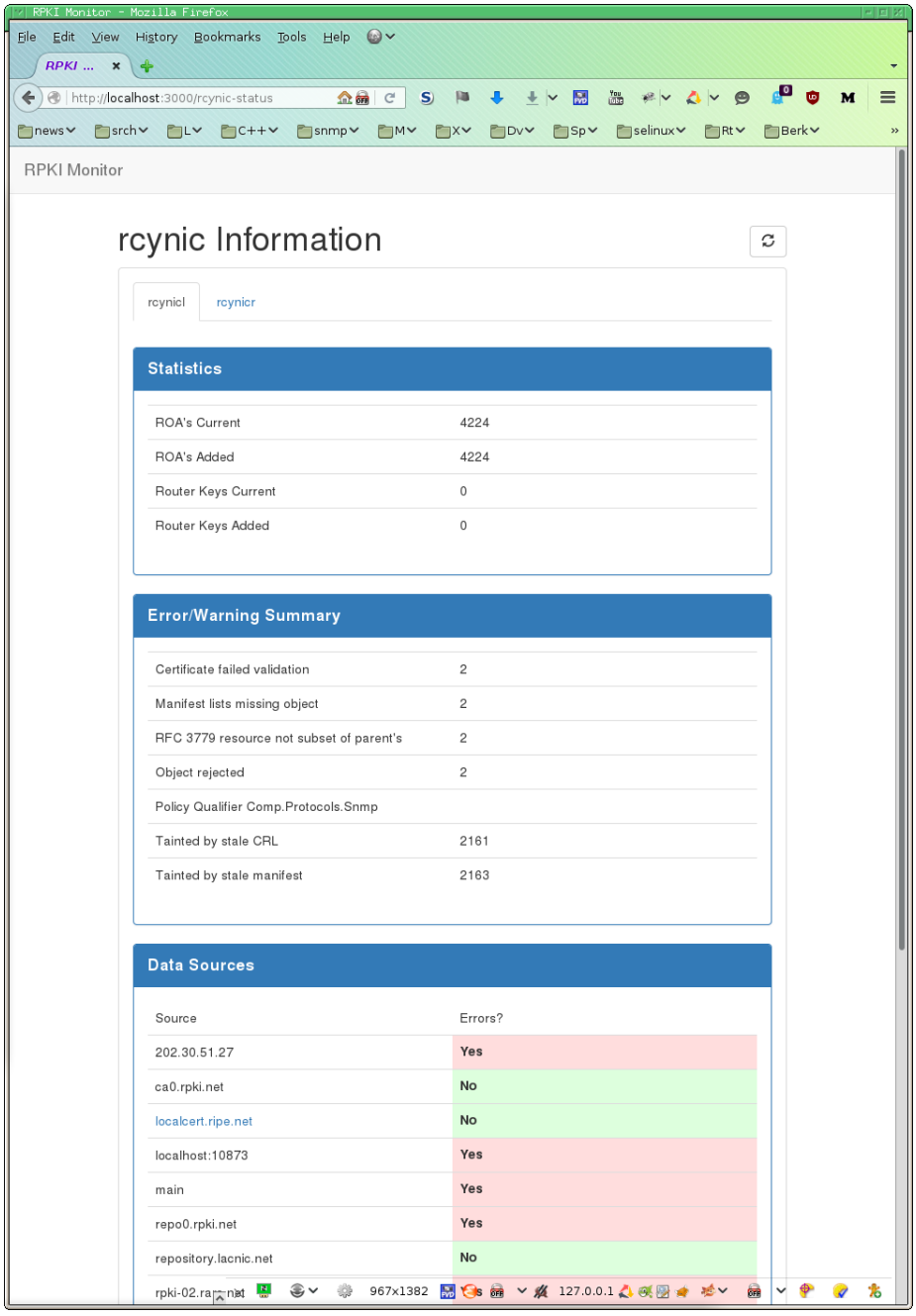

Figure 2: RPKIMonitor Cache (Server)) Display