draft-ietf-netconf-reverse-ssh-02

NETCONF Call Home using SSH
Recap

• NETCONF “call home” is a long time request
  – This draft enables it for SSH
  – RFC5539bis does it for TLS

• IETF 87 presentation was attended by folks from the SEC area and favorably received.
Updates from -01 to -02

• Added Applicability Statement
• Removed ZeroConf (ZeroTouch) text
• Clarified the protocol section even more
• Added a section for identification and verification

Each point discussed in upcoming slides
Applicability Statement

- Says that Reverse SSH must only be used for a NETCONF server to initiate a connection to a NETCONF client.
• Per agreement in the room during the IETF 87 meeting, text regarding how to bootstrap security parameters has been removed.

• Now a separate draft for complete solution:
  – draft-kwatsen-netconf-zerotouch-00
    • Co-authored with Steve Hanna
Clarified Protocol Section

• Greatly expanded text for what exactly the network element and the management server do.

• Moved all other text into other sections, so protocol section only discusses the protocol.
New Identification and Verification Section

• Text from “Protocol section” moved here.

• This section explains how identification and verification can be achieved
  – RECOMMENDS network-elements use X.509-based host keys
YANG Module

• Reverse SSH draft defines a YANG module enabling the configuration of necessary parameters on network elements.

• This YANG module was used to validate sample configuration files for the Reverse SSH reference implementation

Should repurpose grouping with the TLS draft’s YANG module?
IPR

- Filed by Juniper for an awarded patent
- Reasonable Non-Discriminatory terms, with termination on conflict
Reference Implementation

• Code is developed
• Going through internal review...
Port Issue

• Currently there is some question regarding if the Call Home mechanisms for SSH and TLS warrant new IANA-assigned ports.

• Options:
  – Continue to push for a port
  – Rewrite drafts to not require a default port
  – Update SSH & TLS drafts with a reversal flag
Questions / Concerns ?