AI^3 Ku-band Operation Report

Hidetaka Izumiyama

Japan Satellite Systems Inc.

izu@jcsat.co.jp

Overview

- We confirmed that Ku-band link can be used for International Internet connectivity
- But, sometimes we lost the connectivity.

The reason of IP unreachable

- Satellite link
  - Rain degradation is short time(see fig HKUST)
- VSAT equipment
  - Electrial Power Down if UPS is not installed.(ITB)
  - Un-stable Uplink Power(see fig ITB)
    - we need more study on that
    - the satellite is focused clearly on sight?

The reason of IP unreachable(Cont.)

- Gatway PC
  - Inappropriate Riscom card with the Gateway PC(HKUST)
- Operation
  - short notice or miss annoucement for scheduled down
  - WIDE internet re-numbering
  - BGP-4 issue (peering , penalty)

For analysis of satellite link...

- Developed
  - Satellite link carrier monitoring system(http://ix-jp2.ai3.net)
  - Satellite link trafic monitoring system(http://www.ai3.net/traffic)
- Request for Partner side
  - install the tool and gather its log data for our f uture analysis
  - how can we get weather data in your country ?

Conclusion

- Ku-band rain degradation is not a major r eason for IP reachable.
- Ku-band rain degradation does not contiune l ong time.
- We should keep gathering more detailed data for analysis.
- Let's make reseach report together.

Context

- Overview
- The reason of IP unreachable
- For analisis of satellite link....
- Conclusion