Resources and Support for High-Precision Real-Time GNSS Networks

CGSIC Surveying, Mapping, and Geosciences Session – CORS Forum
September 25th, 2007 - Fort Worth, TX
Gavin Schrock, PLS
“To develop, on the national level, a program to assist locally or regionally driven initiatives in the establishment, maintenance, and operation of real-time GPS infrastructure networks to serve the widest possible range of public and private sector interests”
On-Grid

Goals and Objectives

Resources
Expertise
Policy Assistance
Cooperative Efforts
On-Grid

Goals and Objectives - NOT

Rules

Big Funding

Public Sector Only

Proprietary Solutions
On-Grid - Forums

- American Congress Surveying & Mapping - ACSM
- National Society of Professional Surveyors - NSPS
- Real-Time Network (RTN) Administrators
- Local and State Industry Associations
- 2006 NGS CORS Forum @ CGSIC
- International NTRIP Symposium (BKG)
- Trade/User Conferences
- US Chamber of Commerce
- International Conferences and Visiting Study Groups
- PNT Architecture Workshops
- Presentations for Representatives and Staffers
Issues Facing RTN Developers
Action Items

Geodesy - Reference Framework

- Guidelines Sought
- NGS Real-Time-Network Team
- NGS Guidelines for CORS
- International Examples (e.g. SAPOS)
Issues Facing RTN Developers
Action Items

Outreach & Education

ACSM Seminars – RTN Fundamentals

The Reality of Real-Time

LARRY SIGNANI & GAVIN SCHROCK
Washington State Section ACSM
Washington State Reference Network

Kansas City Metro Surveyors Association
Kansas City, MO – March 16th, 2007

onGrid
Issues Facing RTN Developers
Action Items

Outreach & Education

RTN101 – Article Series
Issues Facing RTN Developers
Action Items

Business Model Boilerplates

User Agreements
Issues Facing RTN Developers
Action Items

Business Model Boilerplates

Partnership Agreements
Issues Facing RTN Developers
Action Items

Business Model Boilerplates

School Sites

RTN “SCHOOLNET”

“Schoolnet” Model Similar to School Cooperative Meteorological Sites
Issues Facing RTN Developers
Action Items

Business Model Boilerplates

Communications – IT Guidelines
Issues Facing RTN Developers
Action Items

Business Model Boilerplates

Cost-Benefit Analyses
Issues Facing RTN Developers
Action Items

Policy Considerations

Representatives and Staffer Suggestions

- Consistency in Agency Site Policy
- Evaluation of Application
- Existing CORS Access and Upgrades
- Project Based Participation
- Security Policy
Issues Facing RTN Developers
Action Items

Policy Considerations

Consistency in Agency Site Policy
Issues Facing RTN Developers
Action Items

Policy Considerations

Evaluation of Application

Continue to bear costs of conventional methods without question?
Issues Facing RTN Developers
Action Items

Policy Considerations

Evaluation of Application

Would investments in local or regional RTN reduce total project costs?
Issues Facing RTN Developers
Action Items

Policy Considerations

Existing CORS Access and Upgrades

Should there be open access to real-time data from existing CORS?

Should new CORS be dual-frequency

Should existing single-frequency CORS be upgraded to dual-frequency
Issues Facing RTN Developers

Action Items

Policy Considerations

Security Risk?

RTN are not an additional security risk…

Official statement needed
On-Grid participants have been very effective in articulating their needs, but need a lot of help in framing any national level actions…
Most potential RTN participants experience some level of resistance seeking authorization from above…

Often the higher authorities are simply waiting for an OK from even higher authorities…

Sometimes it is as simple as hearing those three magic words:

This is Cool!
Thank You!

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