Passenger Information Systems

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Discussed Issues

▸ UIC 556 leaflet and current needs of PIS

▸ Present situation

▸ Demand for new standard

▸ Networks for PIS

▸ Framework for unified PIS standard

▸ Unified PIS standard issues

UIC 556 and Personal Information Systems

- ▶ **Railways are very conservative**
  - ▶ Nice for safety, bad for new IS services

- ▶ **Lowest priority for PISs**
  - ▶ Just a framework for PISs
  - ▶ Solid background for PIS application missing
  - ▶ Rail companies PIS requirements not covered

- ▶ **Is any PIS based on UIC556 leaflet only?**
  - ▶ Not found…

UIC556 and CD's PIS requirements

- Route of train journey (9.1)
- Next station stop (9.3)
- Train connections in the next station (9.4)
- Advertising (9.5)
- ... That's all
- Unicode16 issue

- 36 information fields
  - Some mandatory
  - Regional/long distance trains
- Control field required
- MP3 and XML required

- UIC556 is not sufficient for inf. systems

National & vendor protocols

- Created ad-hoc protocols for PISs

- No collaboration among RCs

- No interoperability among different PISs

- PIS protocols like „vendor lock"

  - RC are intended to use „first PIS" compatible

  - PIS protocols are closed...

    - And different country by country...

- It is time to set standard for PIS

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Situation arround new PIS standard

- ▶ Is the new unified standard necessary?
  - ▶ RIC cars vs. trainsets
- ▶ Who will benefit from new PIS standard?
  - ▶ Passangers, transport companies, car producers or PIS producers...
- ▶ What communication layer for PIS?
  - ▶ WTB, Ethernet, some new technology...

Is the new PIS standard necessary?

- Trainsets x RIC cars
  - RIC trains are more flexible
  - RIC cars can extend the TS capacity
  - New Train companies on market
- Special cars (like sleeping cars)
  - Can be attached to different trains during journey
  - Acustic information are not comfortable for passangers
- **We need a PIS standard**

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PIS communication standard benefits

- **Passangers**
  - Same structure of information

- **Rail companies**
  - Car usage flexibility
  - Same standard of passanger services

- **Car producers**
  - Easier construction

- **PIS producers**
  - Opportinities (or threat for someones)

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Networks for PIS

▸ **Wire Train Bus**

  ▸ WTB is only communication for PIS today

  ▸ Designed for train control

  ▸ PIS data „as a guest"

▸ **Ethernet Train Bus**

  ▸ PIS has no critical data

  ▸ Allows new functions for PIS (infotainment)

▸ **Technology development (FftT?)**

▸ **PIS standard should be universal and network independent**

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New PIS standard framework

- **Open standard**
  - Both international and nationals parts

- **Interoperable standard**
  - WTB, Ethernet, …

- **PIS standard workgroup**
  - Rail companies, car & PIS producers
  - Is this collaboration possible?

Unified PIS standard issues

- **Collecting of current national protocols**
  - Information structures, occupied E-Telegrams
  - Data consolidation
- **PIS Standard design**
  - Mandatory/Optional data
  - Common/National data
  - Stable/Experimental data

Unified PIS standard issues II

- Support for new passanger systems functions

  - Internet access

  - Infotainment

  - Commercial presentations

- Validation & Adoption

  - Technical & Business issues

  - Are major RC ready to support new PIS standard?

Conclusions

- No applicable standard for PIS in UIC 556 today
    - Cars of two rail companies cannot share PIS data
    - Limited flexibility of car usage

- New standard for PIS design
    - Network independent (WTB, Ethernet...)
    - Ready to apply
    - Mandatory set of basic information
    - Extendable

- **Rail companies support is critical**

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Thank you for your attention
Questions & Answers

I have a dream..

        ...about unified PIS communication

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