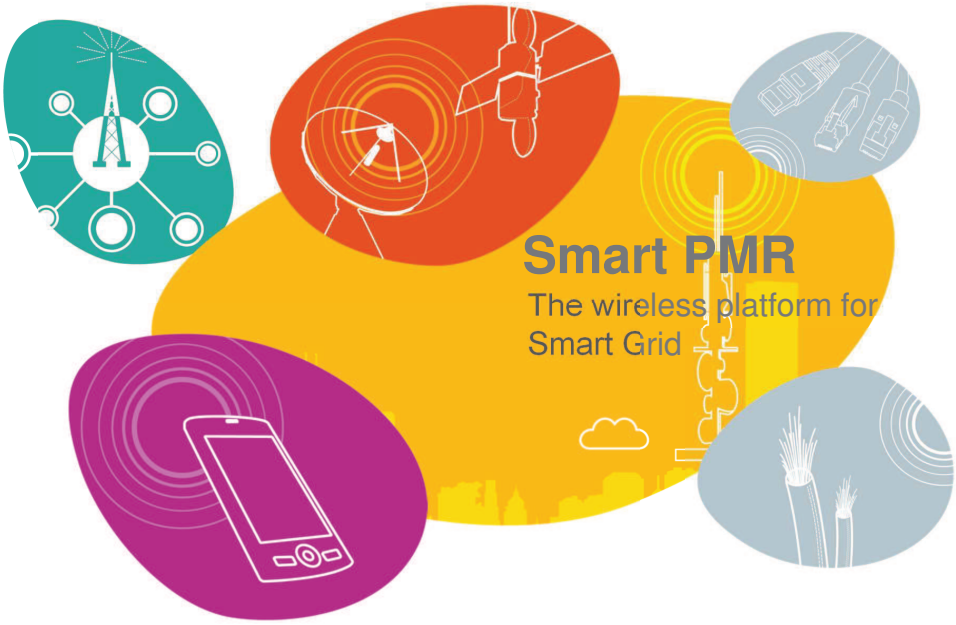

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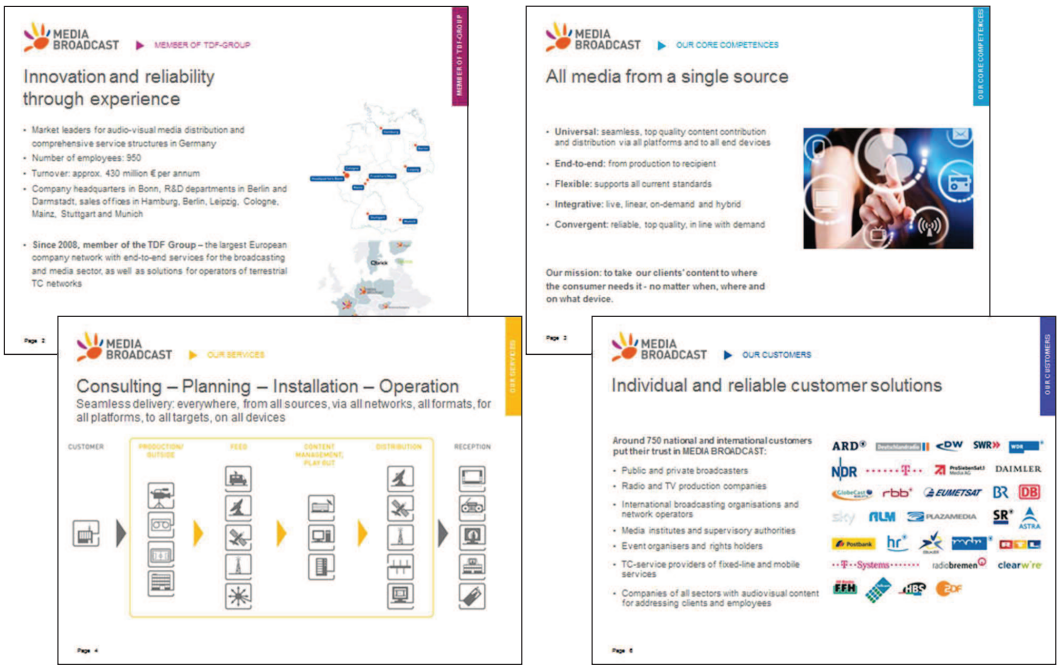
MEDIA BROADCAST ▶ About MEDIA BROADCAST



MEDIA BROADCAST ▶ Dramatic change in German energy infrastructure drives new communication needs

Decision by German Government

- Shut down of nuclear power plants until 2020
- Renewable Energy Sources Act
- Commitment to reduce CO2 emission
- Deregulation of energy market

- **Radical restructuring of the German electricity market**
  - Shut down of nuclear power plants, reduction of fossil power plants
  - Partial substitution by huge off-shore wind parks
  - Regional and local production of renewable energy
  - Upgrade and re-design of grid infrastructures
  - Increase of players in the energy market
- **Decentralize production, storage, delivery and consumption of energy has to be synchronized by intelligent networks, so called "Smart Grids"**
- **Unprecedented cost pressure in the utility industry**

New communication needs

- A multitude of decentralize network elements need to be connected (Smart Grid)
- Decentralize workforce operating the energy infrastructure needs to communicate under all circumstances

Actual Situation

MEDIA BROADCAST

Utilities are exposed to unique communication needs that are not fulfilled by any existing infrastructure

Key requirements

- Voice service for field service staff
- Broadband data services
- Closed user group communication
- Mobile and stationary use in relevant geo's

Commercial requirements

- Influence on the long term service evolution
- Cost efficiency and investment security
- Long term availability of services
- Long term reliability of service partner

Technology requirements

- Long term technology availability
  High compatibility
- High availability/ resilience under all circumstances
- QoS, service priority
- High degree of protection/ data security

Existing infrastructure does not fulfill requirements

- Conventional mobile and fix networks serve mass markets and cannot serve the requirements of the utility market in terms of QoS, security, availability and reliability
- Most utilities operate several local and regional historic wireless and wire line networks that are end of life, complex, expensive and that are neither ready for modern broadband communication nor for low latency communication with large numbers of devices

MB Solution

MEDIA BROADCAST

Utilities' future unique communication needs can solved with MEDIA BROADCAST Smart PMR infrastructure

MEDIA BROADCAST value proposition

Industry Dedicated Network
Only in a dedicated network with a limited number of VPN QoS, capacity and latency can be guaranteed

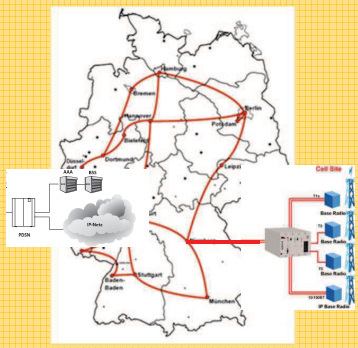
Shared platform run by a reliable network operator
- Only a shared platform can be run at acceptable economic terms.
- To satisfy all requirements a long term stable, reliable network operator that can serve all users on a neutral basis is required

Wireless low frequency network
- Only a wireless network can satisfy all use cases across the required geographies at affordable cost (low cost per area)
- A technology with a long-term technology support by vendors and with available frequencies should be used

All IP network
- Network must be IP based to handle a broad variety of data and voice applications
- Useful to substitute older communication networks

MEDIA BROADCAST Solution

National wireless radio communication platform
- Based on the CDMA2000 EV-DO Rev. A standard
- Frequencies 451 to 455 MHz



MEDIA BROADCAST Smart Professional Mobile Radio (PMR)
- platform fulfills all requirements requested by the utilities

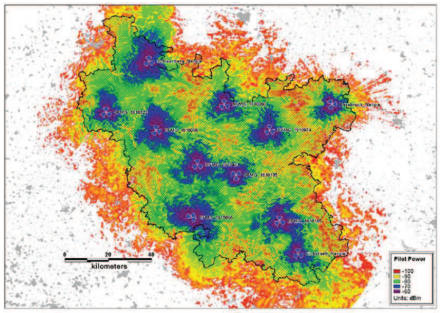
MEDIA BROADCAST

Smart PMR development in 2 steps fits to all Utilities' requirements today and in the future

MEDIA BROADCAST Smart PMR

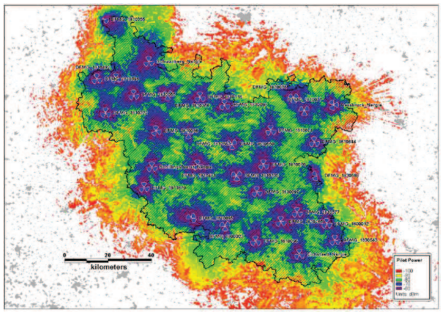
Step 1:
Smart PMR for Smart Grid, M2M and Emergency Workforce Communication

- Supports fixed and portable terminals
- Good outdoor coverage
- All IP Hierarchy, QoS, SLA
- Low latency , 40 – 60ms
- Voice Service by VoIP
- PTT Server Application
- Supports all remote access standards (SCADA, RS232, RS 485, …)



Step 2:
Smart PMR for Smart Grid, M2M, Workforce Communication and Smart Metering

- Supports mobile terminals
- Excellent outdoor coverage
- Good indoor coverage
- At once more than 40 calls per BTS
- Serves up to 50.000 Metering points/ BTS
- Download file transfer available



MEDIA BROADCAST

The network service offering targets all relevant players in the utility industry

MEDIA BROADCAST Smart PMR as shared infrastructure

900 municipal utilities + Regional grid operators & utilities + National grid operators

Representing overlapping layers in need of the same (= shared) infrastructure as a Multi Virtual Private Network to be operated by MEDIA BROADCAST as a neutral infrastructure provider means for the customer:

- No investment in infrastructure required
- Cost saving by substitution of other communication platforms
- Defined Quality of Service and Service Levels
- Efficient price model for dedicated needs

MEDIA BROADCAST ▶ Summary

- Dramatic change in German energy infrastructure drives new communication needs
- Utilities are exposed to unique communication needs that are not fulfilled by any existing infrastructure
- Utilities' future communication needs can be solved with MEDIA BROADCAST Smart PMR infrastructure
- Smart PMR development in 2 steps fits to all Utilities' requirements today and in the future
- The MEDIA BROADCAST network service offering targets all relevant players in the utility industry and guarantees the best benefits

MEDIA BROADCAST ▶ CONTACT

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Linking the Future