
IPDR.org

Standardizing Next-Generation Accounting

Reducing the time and cost of usage
measurement and exchange for
next-generation services

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ipdr.org

Telecom Industry Trends



Market

- Desire for both flat-rate and usage-based billing
- Unrealized revenue from value-added services
- Complex content/connectivity partnerships
- Industry mergers and acquisitions
- Competitive pressures and shorter time-to-market

Technology

- Opportunity for convergent networks
- Rapid service evolution
- Diverse accounting requirements of next-generation services

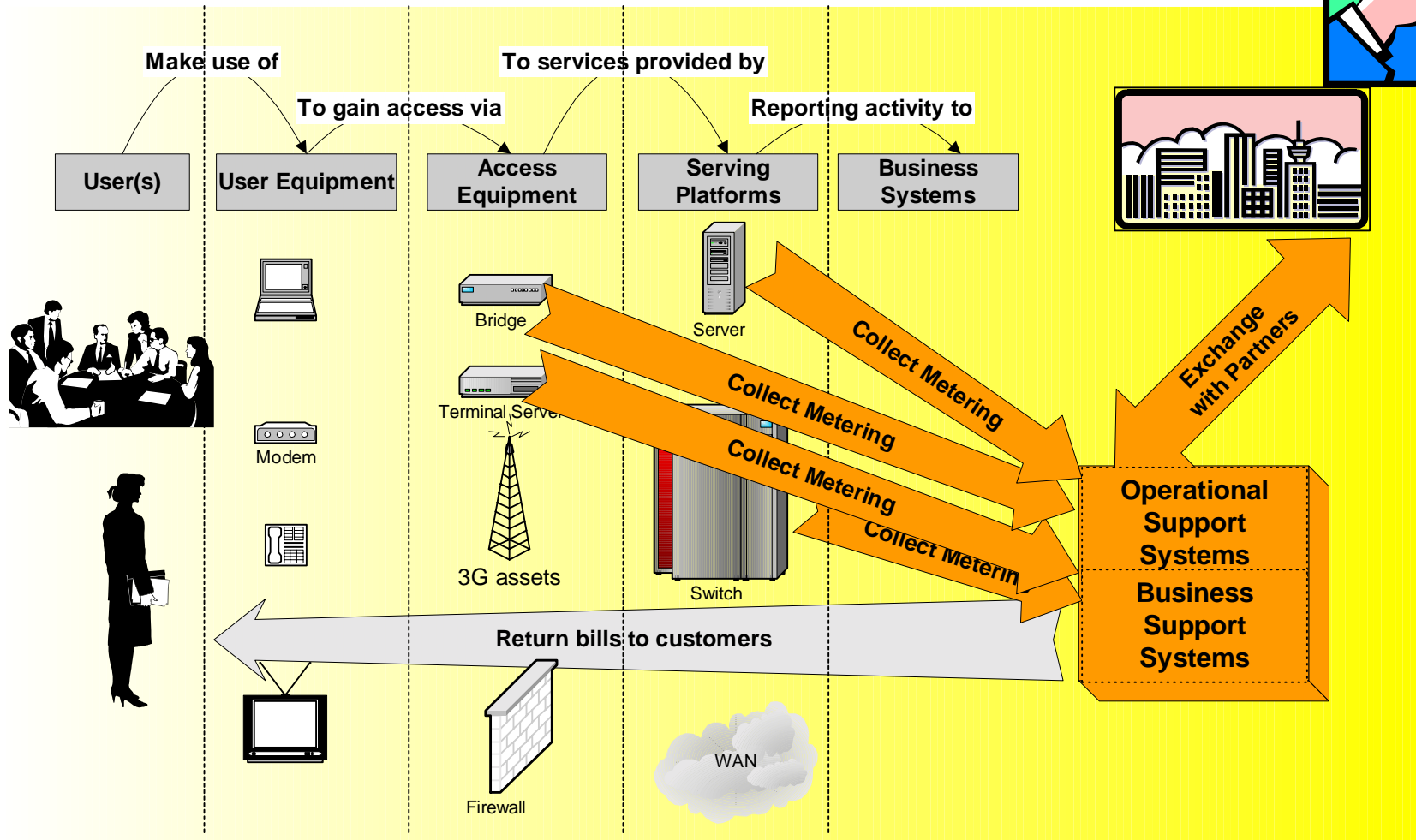
To Collect or Not to Collect...

A product manager in a service provider near you...



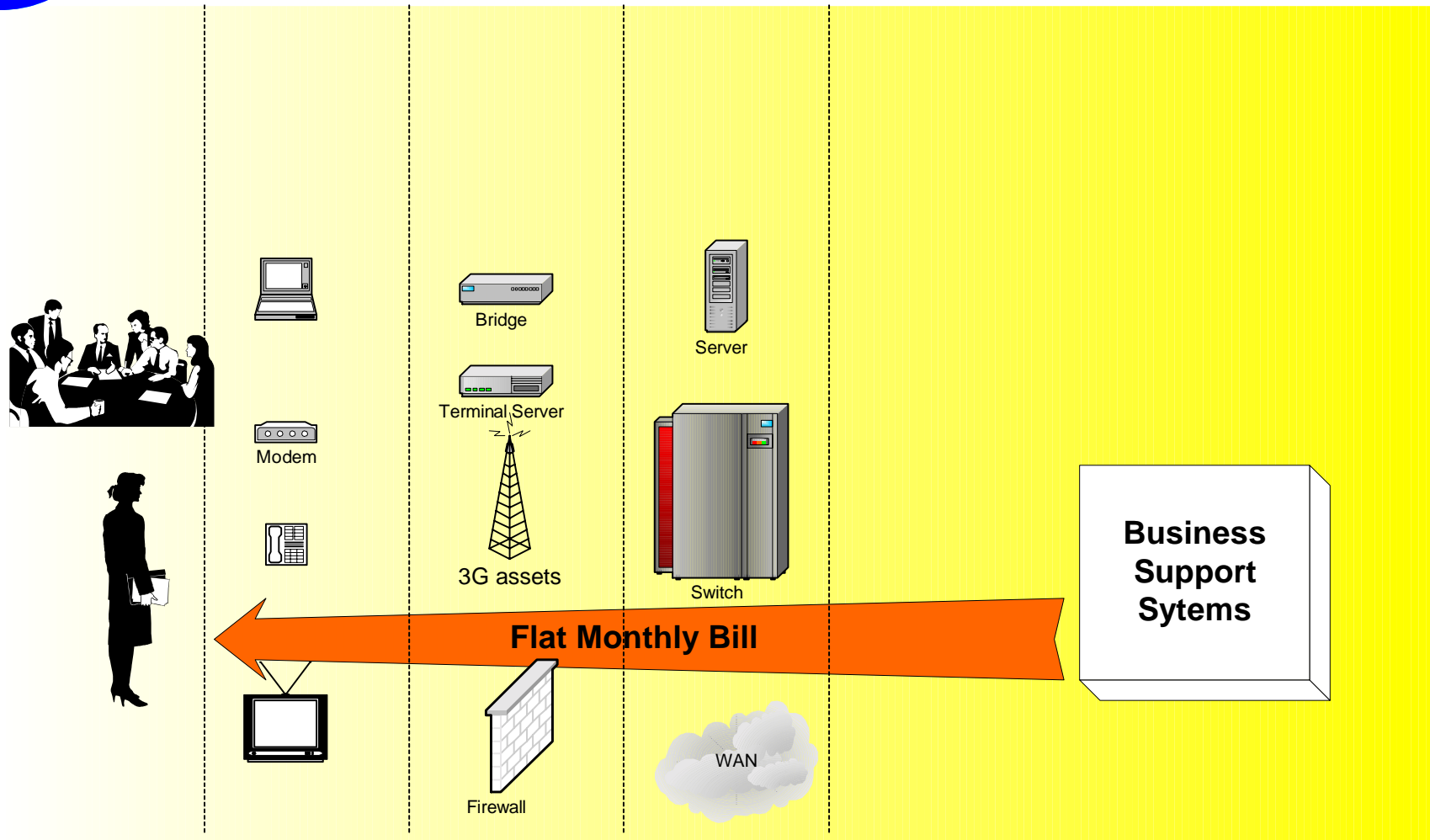
“Wow – what a cool new offering I’ve thought up... This will generate millions in new revenues!”

EEEEK!!





The Solution?





The Solution: Internet Protocol Detail Record Organization (IPDR.org)

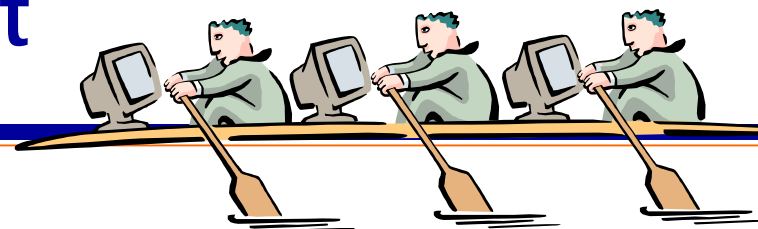
Objective

- To **reduce** the time and cost of usage measurement and exchange for **next-generation** services.

Method

- Implement de-facto **open standards** for IP-based support system **interoperability**, enabling providers to deploy next-generation services profitably.

Industry Support



Board of Directors - 2003

- ACE*COMM, Amdocs, Billing Concepts, Cisco, Convergys, Hewlett-Packard, Sprint PCS, Telus, XACCT Technologies

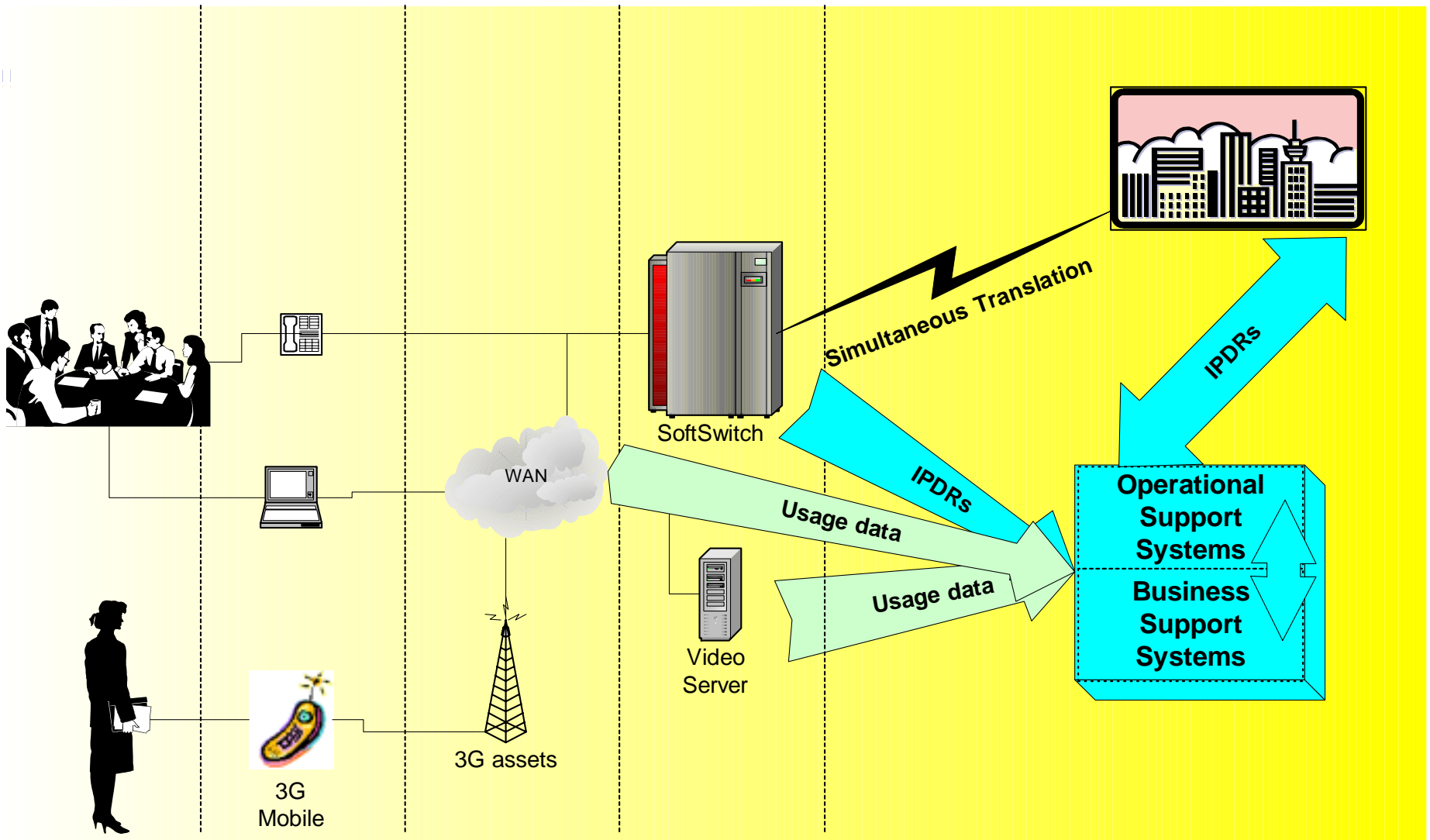
Members

- **BSS**: Amdocs, AMS, Billing Concepts, Convergys, CSG Systems, etc.
- **OSS**: ACE*COMM, DST Innovis, ECtel, NEC, Openet, etc.
- **Equipment**: Cisco, Hewlett-Packard, Marconi, etc.
- **Service Providers**: Infosys, Rogers AT&T Wireless, Sprint PCS, Telus, TSI Telecommunication Services, etc.

IPDR.org Achievements

- NDM-U v3 Specification
- IPDR Compliance program & testing
- Reference Libraries in C & Java
- Major carrier deployments underway
- Joint projects with other industry associations

Where Does IPDR Fit?

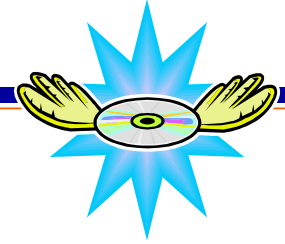


NDM-U 3.x



- Multiple Service Support
 - VOIP, Internet and Wireless Access, Streaming Media, WLAN...
- Stable Version Complete!
 - Forward Compatibility
- Compact Encoding 5:1 Reduction Over XML
 - Uses IETF XDR – RFC 1832
 - Direct Translation To/From XML Format

IPDR v3 Reference Code



- Read/write IPDRs as **easily as plain text**
- Supports **all IPDR** flavors
- Available in **C and Java**
- **Liberal license** permits use and modification
- Simple API's hide complex logic:
 - Read foreign schemas to absorb custom IPDR records
 - Manage rolling log files and automatic updates to partner systems

IPDR Compliance Program

- Provides a “buyers guide” for purchasers
 - Standard format permits apples to apples comparisons
- Evaluates results: interoperability
- Inexpensive and easy enrollment and testing for vendors



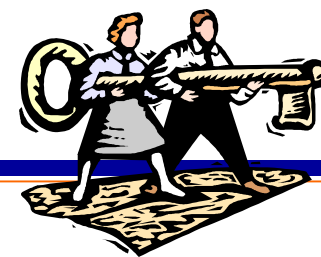
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Implementations Underway



- Major carrier deployments
 - Multiple wireless heavyweights
 - Emergency calling leader
 - Smaller VOIP & ASP projects
- Continued “Envelope-pushing” trials
 - TMF Catalyst projects
 - Service level agreements
 - Packet wireless
 - hybrid wireline/wireless
 - EU-FORM

Future Direction: Equipment



- IPDR just as applicable for bits as for services
- Joint projects refine and apply service specs for manufacturer communities
 - Cable Labs
 - International Softswitch Consortium
 - 3GPP
- Streaming IPDR for real-time, reliable, unidirectional transport
- Radius accounting records

Future Direction: Inter-Carrier Exchange



- NDM-U technology fully supports exchange scenarios. Key work today: Public WLAN Roaming
- Joint work ensures support of existing settlements networks and technologies
 - ATIS OBF EMI settlement
 - ITU-T Study Group 3
 - CIBERNET mappings to CIBER and MXP
 - Other open dialogs: GSM TADIG TAP3, ETIS, etc.

Recapitulation

- Usage metering is overly complex; standards provide the solution
- IPDR NDM-U v3 is tried and proven
- What can you do?
 - Review www.ipdr.org
 - Join IPDR.org general mailing list for updates
 - Implement & share experiences
 - Participate in IPDR Organization



Further Inquiries

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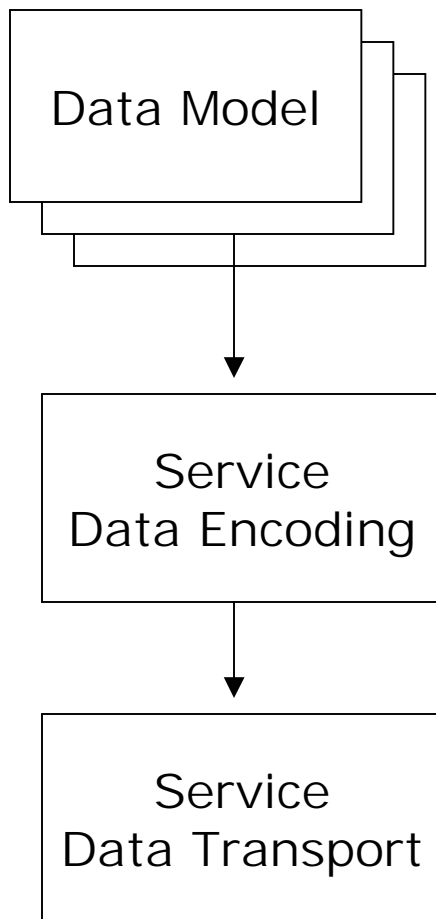
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Addendum Slides

The Model Driven IPDR Approach



- Service Definition
(Subset of W3C XML-Schema 1.0)

Alternative Encoding:

- XML Document
- XDR based binary encoding
- Others (e.g. RADIUS, Diameter AVP)

Alternative Transport:

- File based exchange (of XML or XDR)
- Streaming (XDR only)
- Others (e.g. RADIUS UDP, Diameter TCP/SCTP)