

ATIS IPTV Interoperability Forum (IIF) and IPTV Standardization Activities

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Presented by Dr. Simon Jones, BT
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October 13, 2006

ATIS—The Alliance for Telecommunications Industry Solutions

- Established in 1983, ATIS is a United States based body that is committed to rapidly developing and promoting technical and operations standards for the communications and related information technologies industry worldwide using a pragmatic, flexible and open approach.
- ATIS' member companies and committee participants represent a wide cross section of the global communications industry.
 - 300+ member companies
 - 23 industry standards committees and forums with 1100+ participants.

ATIS—The Alliance for Telecommunications Industry Solutions

- ATIS takes a market-driven approach to standards development.
- Priorities are established by:
 - the ATIS Board of Directors
 - the ATIS Board’s Technology and Operations (“TOPS”) Council
 - the ATIS Board’s Chief Information Officer (“CIO”) Council

The IPTV Issue

- **IPTV is a much abused-misunderstood term. What is IPTV???**
 - It is a set of consumer-friendly TV Services delivered over a converged packet infrastructure and includes mobility.
 - IPTV must provide an equivalent TV experience plus the addition of enhanced accessibility & transportability.
 - *It's not just encoded video in IP packets.*

The IPTV Issue - 2

- **Current implementations are proprietary.**
 - One of ATIS IIF's main goals is the second 'I':
interoperability
 - Interoperability will be enabled with the creation of a holistic set of standards-based reference architecture & metrics documents

ATIS Response

- **March 2005** - IPTV Exploratory Group (IEG) established by the ATIS Board of Directors to assess the technical and operational opportunities and challenges surrounding deployment of IPTV.
- **June 2005** – On recommendation of IEG, ATIS Board established the IPTV Interoperability Forum (IIF) as part of ATIS Board's priority work to:
 - Bring focus and coordination to standards work needed for IPTV.
 - Resolve issues that may impede adoption of IPTV.
 - Provide venue for interoperability activities.
 - Assess IPTV issues in light of NGN directions.
- **September 2005** – First IIF meeting
 - Now over 50 member companies.

ATIS IIF Goals:

Long Term

- Specify appropriate functionality/interfaces in the architecture.
- Identify & provide metrics for measuring the quality of IPTV service across those interfaces.
- Provide an overall framework feeding into an interoperability verification testing program.

Near Term

Working from Top Down to address industry's highest priority issues:

- Develop architecture requirements & reference models.
- Address interoperability issues in content security (DRM).
- Catalog QoS measurement points, metrics and methods.

Software, Hardware & Service Providers

The ATIS IIF Participating Companies

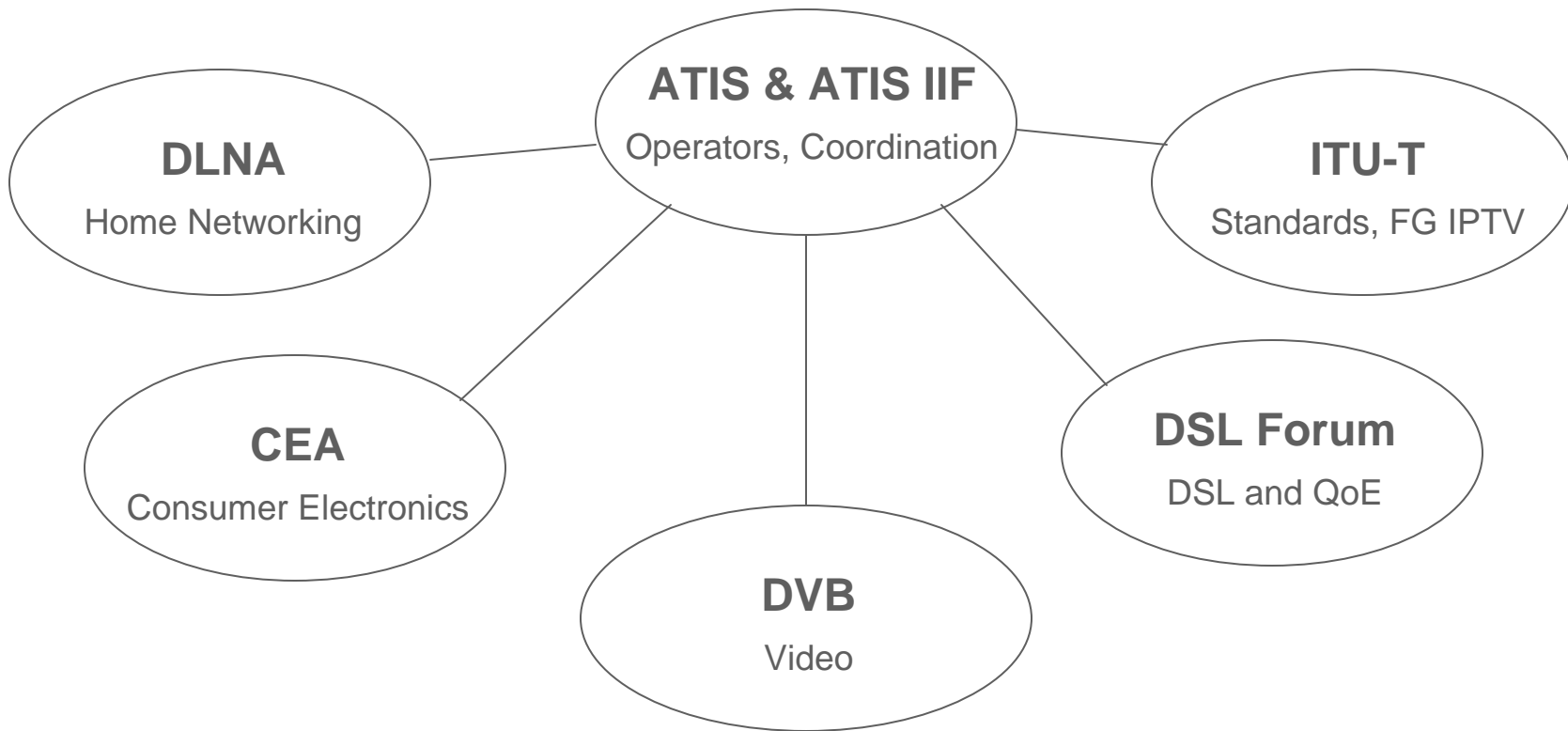
Accenture
Alcatel
Bell Canada
British Telecom
CISCO/Scientific Atlanta
Ericsson
Harris
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JDSU
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Rogers Wireless
Sony
TDS Telecom
Tellabs
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BellSouth
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Irdeto
Juniper
Lucent
mPhase
Neustar
Qwest
SeaChange International
Sun Microsystems
Telchemy
Terayon
Westell

Agilent
AT&T
Big Band
Cingular Wireless
Entrisphere
Harmonic
Hitachi
Intel
LG
Microsoft
Myrio/Siemens
Nielsen
Real Communications
Spirent
Symmetricom
Telcordia
Tollgrade Communications
Widevine



Success Formula: ATIS IPTV Activities are Closely Coordinated with Related Standards Bodies

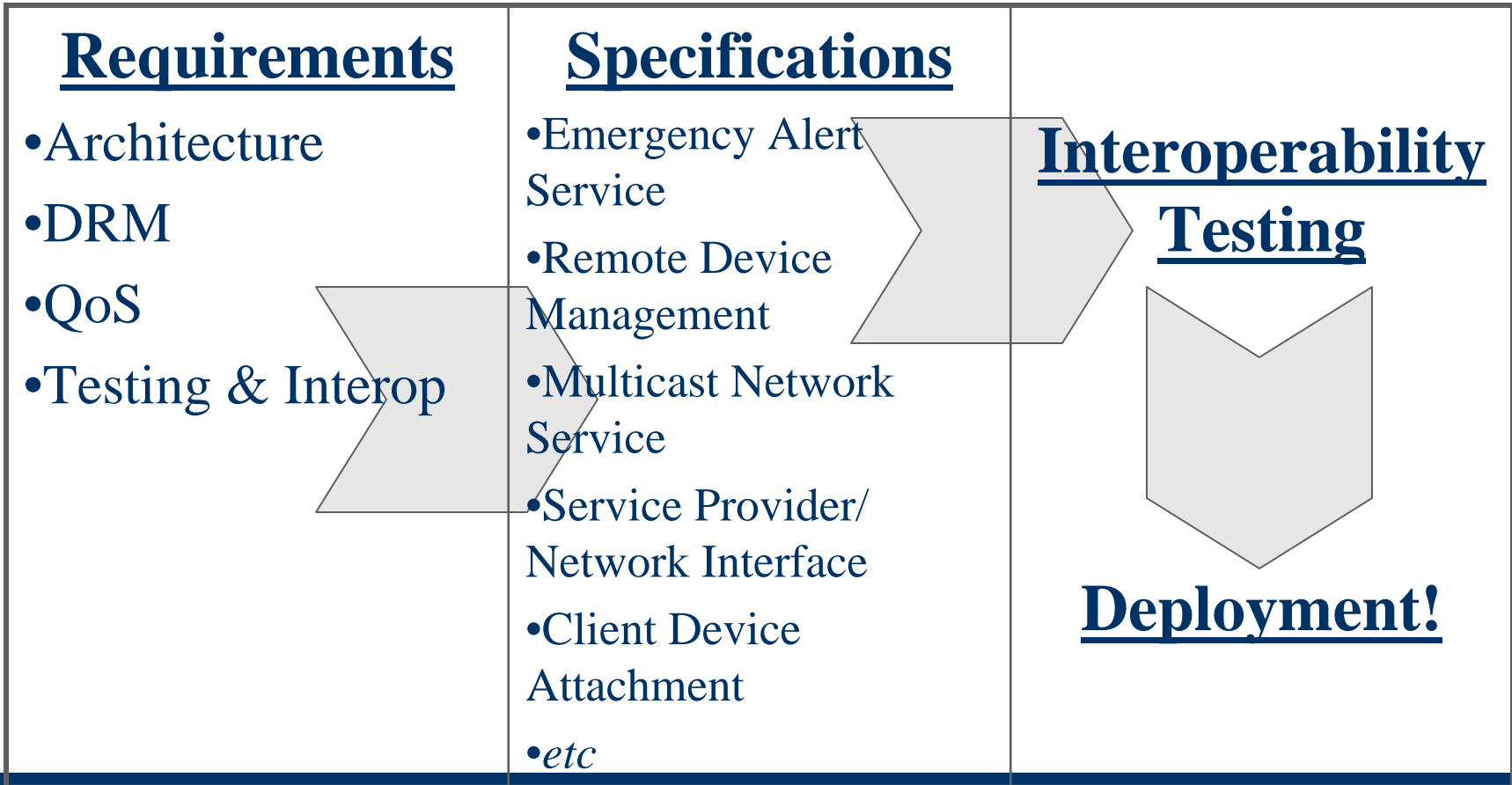


ATIS IIF:

Structured Around IPTV Issues

- **Task Forces aligned with near-term goals:**
 - Architecture
 - Digital Rights Management
 - Quality of Service Metrics
 - Testing and Interoperability (*starting soon*)
- **Accomplishments in less than 12 months**
Now published – *available on www.atis.org*
 - IPTV Architecture Requirements [ATIS 0800002](#)
 - DRM Interoperability Requirements [ATIS 0800001](#)
 - IPTV Architecture Roadmap [ATIS 0800003](#)

Interoperability, Interconnection & Implementation



Where We Are Going:

Architecture

- **IPTV Architecture Roadmap** – Defines Three Phases of IPTV
- **Phase 1**
 - This is the foundation on which all will be built!
 - Network/Service attachment
 - Service discovery
 - Services basic navigation
 - Regulatory compliance (EAS, Closed Caption, Parental Advisory ...)
 - Target Date for Phase 1 Standard End Of Year 06.
- **Phase 2**
 - VOD/PPV transaction-based services.
 - Target date for Standard End of Year 07.
- **Phase 3**
 - Interactive TV, multiplayer games, Network PVR, Home Peer to Peer.
 - No target date for Standard set yet.

Service Priorities

Services from the IPTV Requirements Document

Category	Service	Phase 1	Phase 2	Phase 3
Entertainment	Linear/ Broadcast TV	X		
	Linear Broadcast with Trick Modes			X
	PPV		X	
	Video/TV on Demand (VOD)		X	
	Interactive TV			X
	Download Based Video Content Distribution		X	
	Consumer Originated Video			X
	Audio (e.g. Music)	X		
	Games			X
	Pictures			X
Regulatory Information	Emergency Information (e.g., EAS)	X		
	Closed Captioning	X		
	Content Advisories and V-Chip Technology	X		
Advertising	Traditional Broadcast Advertising	X		
	Targeted Advertising			X
	Directory Advertising			X
	Direct Mail Advertising			X
	Other Advertising services			X
	Advertising message logging			X
Communications	Messaging			X
Service Information	Interactive Program Guide		X	
	Parental Control Services		X	
	Notification Services (e.g. Caller ID)		X	
Hybrid Services			X	
	3 rd Party Content Services			X

Where We Are Going: DRM and QOSM

- DRM Interoperability Standard
 - Common scrambling algorithm (October 2006)
 - Broadcast content protection (EOY 2006)
 - In home content protection requirements and specifications (start 1Q2007.)
- QOSMetrics Framework Standard (October 2006)
 - Defines the QoSM that achieves a desired system performance (QoE)
 - Concepts and definitions of QoS/QoE for IPTV
 - Identification of metrics
 - Measurement
 - Measurement points
 - Measurement techniques
 - Methodologies (for achieving metrics.)