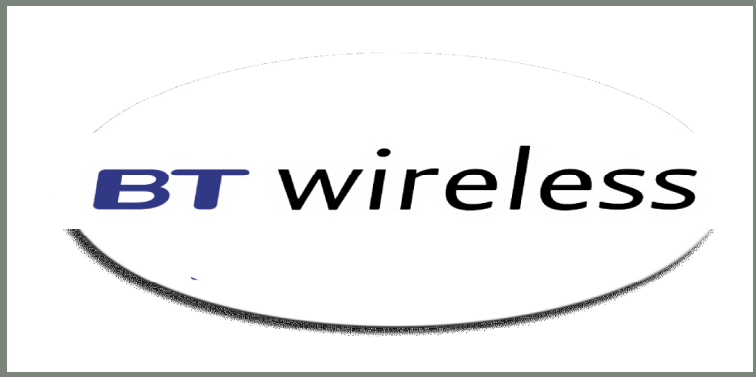
T2 Presentation to TSG-T#10

Bangkok, 6-8 December 2000

T2 Chairman: Kevin Holley,
BT Wireless

Slides in TP-000192

Report in TP-000191



Agenda

- Meetings Held
- Key Issues
- Release 4 Status
- Release 5 Preview
- Future Meetings
- Change Requests for Approval
- Liaison Statements

Meetings Held

- T2 SWG1 MExE
  - 26-28th September, 2000
    - Vuokatti, Finland (Nokia)
  - 24-26th October, 2000
    - Chicago, Illinois, USA (Motorola)
- T2 SWG3 MMS
  - 10-12 October 2000
    - Sophia Antipolis, France (ETSI)
- T2 Plenary
  - T2 #11 Shin Yokohama, Japan (Panasonic)
  - 27 November - 1 December 2000
  - Around 100 participants, around 200 documents

Key Issues

- Magic4 Mobile Handset Client
- Special Presentations on External Interfaces
- Security Issues with External Connections
- Terminal Capabilities
- New External Fora
- UE Capabilities - no more work in T2
- Shell for Data Constructs for information

Magic4 Mobile Handset Client

- T2 has been approached by a UK-based company called Magic4, who would like to have some codepoints assigned to them in the standard for SMS to enable a worldwide standard for “thin client” based content delivery to mobiles
- Extract from their presentation follows
- Full presentation and further information available

Magic4 Slideset Extract #1

- …from content to consumer

- Downloadable Ringer tone
- Operator replacement logo
- Iconimation™
- Graphics and sound
- Embedded Forms
- Downloadable menus
- Remote diagnostics
- Enable hidden features

Magic4 Slideset Extract #2

- Advertising and Sponsorship

- Allows brand extension in to wireless
- environment
- Visible identifier
- Can also add corporate tune as ringer
- Supports total marketing concept

Magic4 Slideset Extract #3

- Send and store a barcode as SMS
- m-ticketing solution.
- Link to location service for m-coupon while shopping.

Magic4 Issues

- Marketing presentation is very compelling for Operators
- BUT
  - To succeed, this must be adopted in the majority of handsets
  - The first proposal from Magic4 was just to assign an SMS codepoint
    - references out to “proprietary” Magic4 specification
    - T2 could receive many such requests from different organisations with different schemes
  - Buy-in of manufacturers needs to be established
  - Price-point of this solution vs combined WAP/SMS solution unknown
  - The Magic4 specification uses different, new techniques where solutions already exist (e.g. for compression and concatenation)
  - T2 has not yet seen the full Magic4 specification
- AND
  - Magic4 has IPR in this space

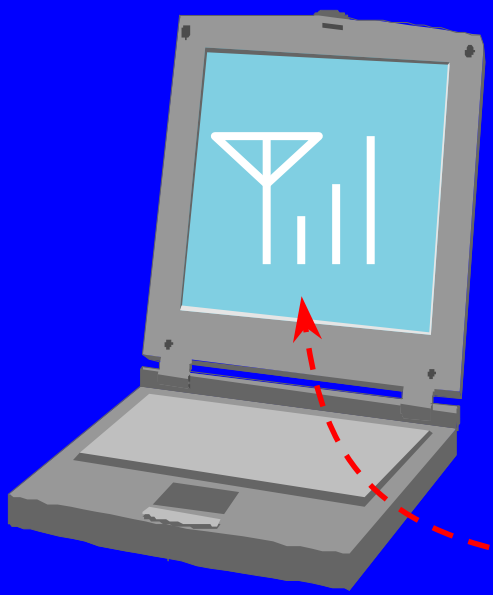
Magic4 Next Steps

- Operators would certainly like a single standard to be able to implement what is contained in Magic4 presentation
- Magic4 will seek further industry consensus before next meeting
- Possible avenues for progress could be, amongst others:
  - For Magic4 to input their ideas to augment existing 3GPP specifications
  - For the Magic4 specification to become a 3GPP specification (with modification as required by 3GPP members)
- Should we advise the PCG of the IPR issues?

Special Presentations on External Interfaces

- Presentations were made to T2 on:
  - USB Forum
  - IRDA
  - Bluetooth
- Key slides from these follow
- Full presentations are available

Mobile Equipment Control/Status



USB Host
(PC etc.)

+WS46

Network selection (Support service)

Wakeup (Ring,In/Out service)

Caller/Called Number

Memory Dial

Area reporting (In/Out service,Restrict,…)

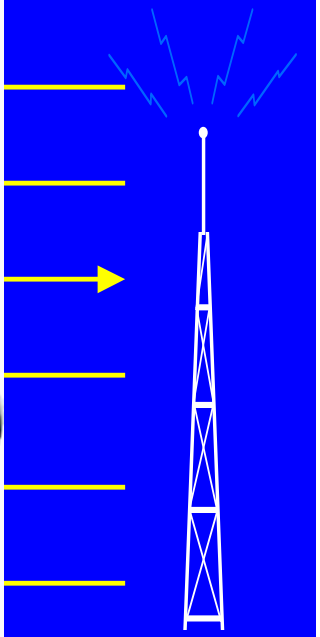
RF Signal Level

Call Charge

IrOBEX Format

Phone Book Exchange

USB

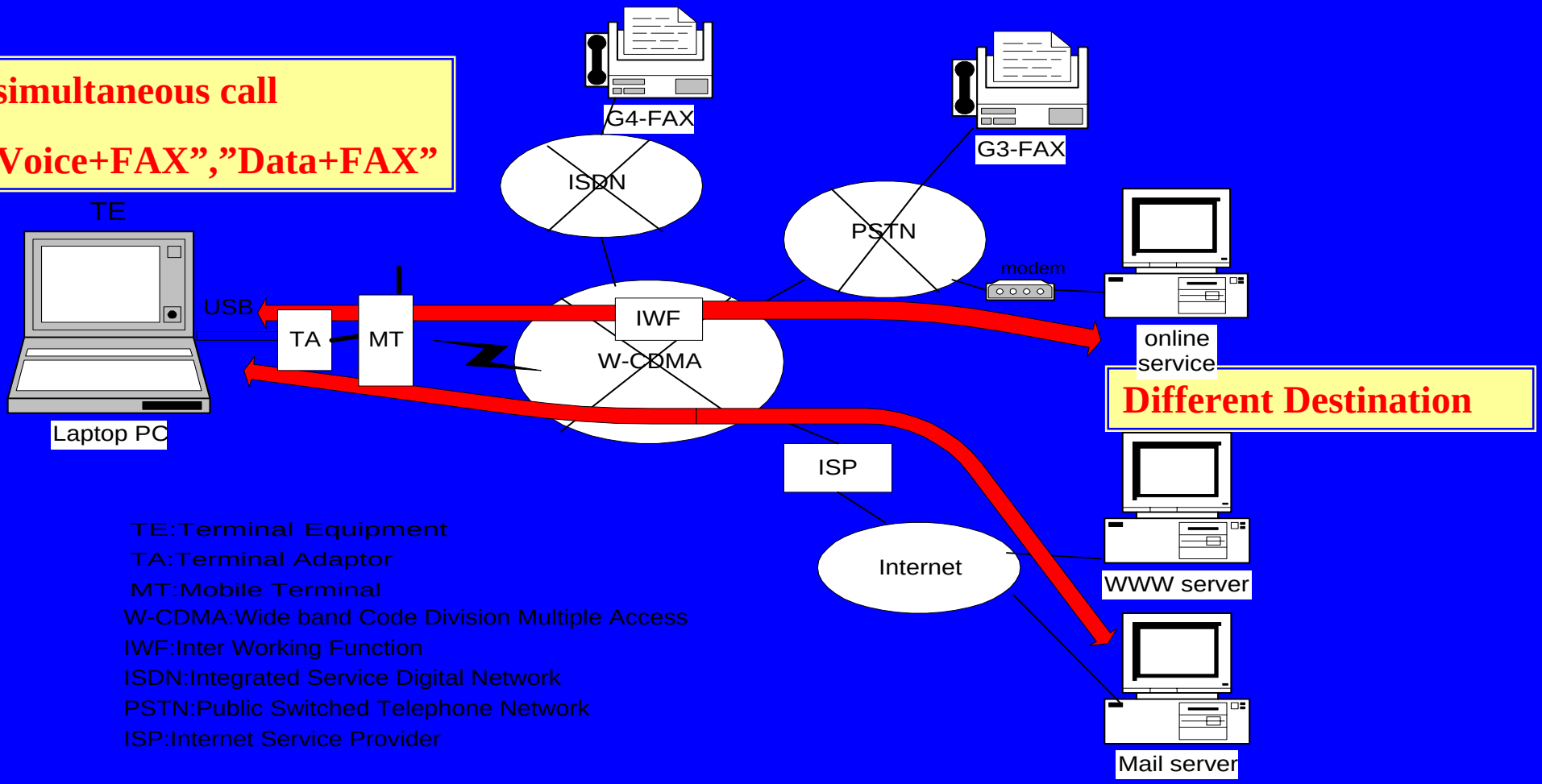


Mobile Equipment

Multi-call on Network

>=2 simultaneous call

ex. “Voice+FAX”,”Data+FAX”

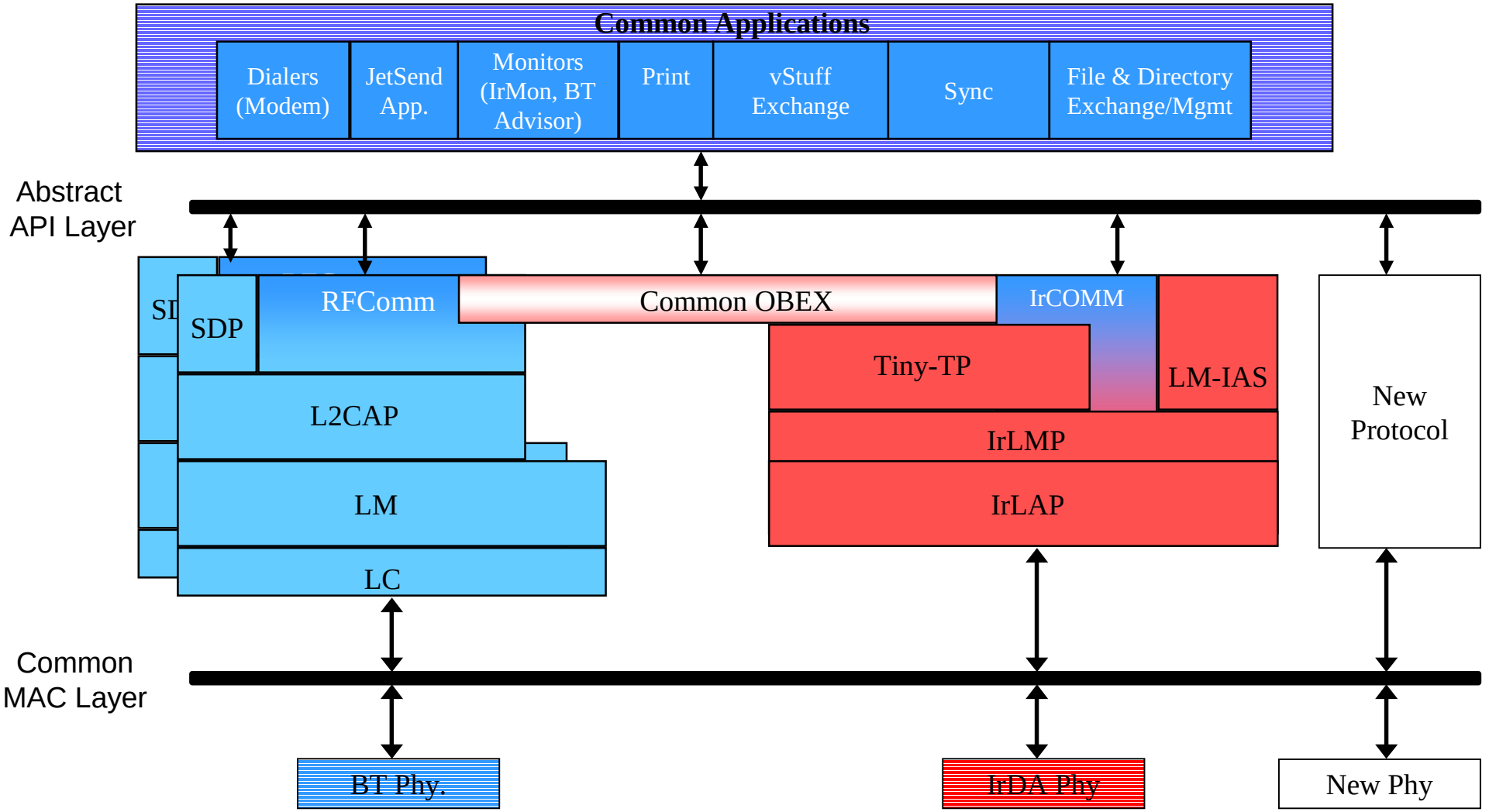


TE:Terminal Equipment
TA:Terminal Adaptor
MT:Mobile Terminal
W-CDMA:Wide band Code Division Multiple Access
IWF:Inter Working Function
ISDN:Integrated Service Digital Network
PSTN:Public Switched Telephone Network
ISP:Internet Service Provider

Connectivity Usage Models

- Conscious Connectivity
  - Point-to-Point Usage
    - Personal information transfer (vCard, vCalendar, etc…)
    - User initiated synchronization
    - Financial messaging
    - Walk-up printing
- Unconscious Connectivity
  - Personal Area Networking
    - Voice
    - Network Synchronization
    - Shared access device connectivity

Combined Bluetooth-IrDA Protocols



Exporting Application Layer Technologies

New Industry Support for IrDA Protocols

- Bluetooth and 3GPP Adopted IrDA's OBEX & IrMC Sync Layer 4
  - Will make applications easier to write and run on either transport
  - Maximize the limited code space
  - Speed application development
  - WAP Forum Is Evaluating Picking Up This Technology
- 3GPP TSG-T2_SWG3 Adopted IrDA's IrMC iMelody to Send Alert Tunes
- 3GPP TSG-SA and WAP Forum are Evaluating Using vBookmark for URLs for Inclusion in the SWG2 vObjects database of object types
- WAP Forum Is Looking at Adopting OBEX and Other IrDA Application Layers through the PAN DCs on IrDA, Bluetooth, and Other SDOs
- SyncML & Bluetooth evaluating use of IrDA Organization:
  - Document management
  - IP management & protection

Existing and Emerging IrDA Initiatives & Applications

Synchronization & PIM Information Exchange

- IrMC (Infrared Mobile Communicator) Exported Stuff
  - Level 4 Data Sync
    - Bluetooth SIG
    - 3GPP TSG-T2_SWG2
    - WAP Forum (Proposed)
  - iMelody
    - 3GPP TSG-T2_SWG1
  - vBookmark
    - WAP Forum (Proposed)
    - 3GPP TSG-SA (Proposed)
- IrWW (Infrared Wrist Watch)
  - Compressed Versions of the Above plus
  - Generic Binary Objects for Compression of Things like
    - vCard
    - vCalendar
    - vMessage
    - iMelody
    - TimeSync
  - GPS Transfers

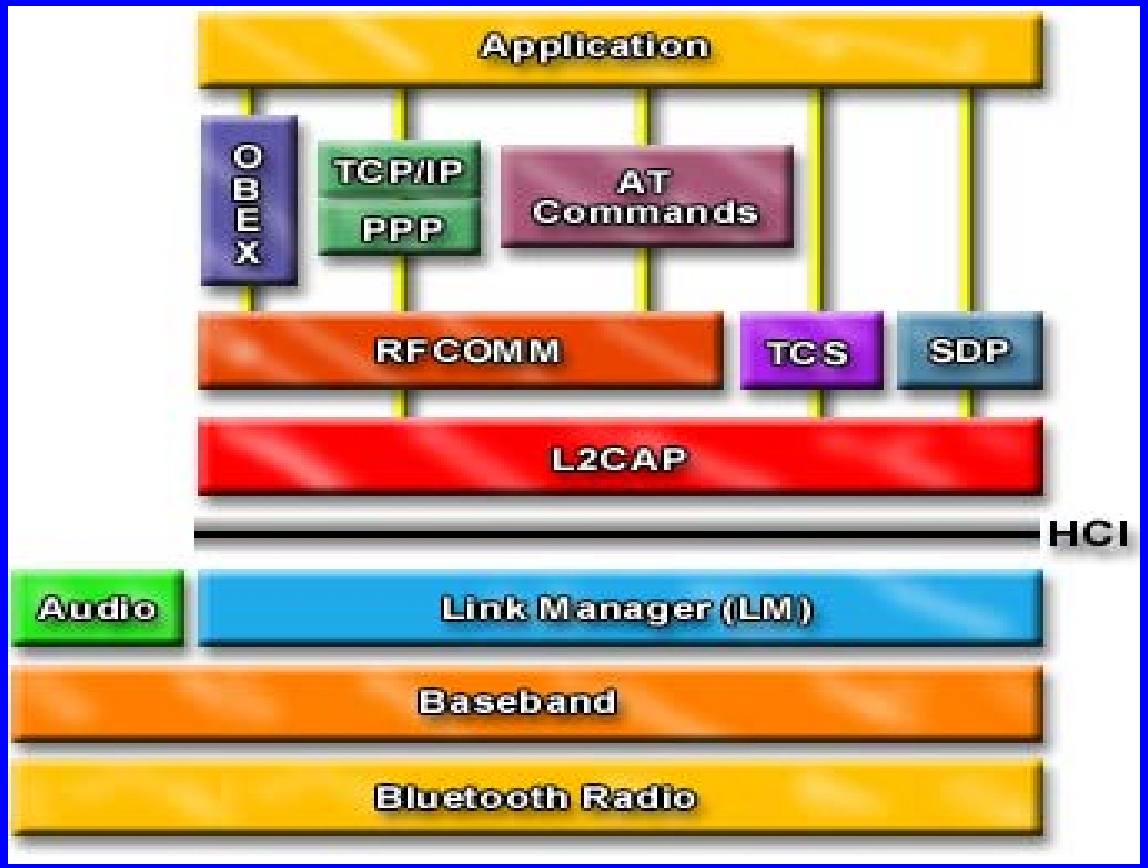
Existing and Emerging IrDA Initiatives & Applications

- Transaction Processing
  - IrFM (Financial Messaging)
- Enhanced Walk-Up Printing
  - Printer Profile
  - Bluetooth (Proposed)
- High Speed Applications
  - MP3
  - Airline Net Access
  - Digital Still Cameras
  - Scanners
  - LAN Access & Port Replication
- OBject EXchange (OBEX)
  - WAP Forum (Proposed)
  - SyncML (One of Three Link Layers – HTTP, WSP, OBEX)
  - Bluetooth (Proposed via PAN and Other DCs)
  - 3GPP TSG-T2_SWG2
  - Also Runs Over TCP/IP

Usage scenarios addressed* in Bluetooth 1.0

- Headset
- Cordless Telephony; Two-in-one phone
- Dial-up networking & FAX
- LAN access [point-to-point networking]
  - WAP over Bluetooth
- Synchronisation
- File Transfer
- Business card exchange
  (and push/exchange of other items like calendar entries etc.)

Bluetooth 1.0 Protocol Stack



Issues for T2 on External Interfaces

- Need for common high level protocols interfacing to specific low level interface
- Need for overall system security thinking in development of External Interfaces outside 3GPP (see later slides)
- Do we perpetuate the multiple-serial-link model or move to a completely IP-based model for UE architecture (see presentation on Oxford Workshop)?

Security Issues with External Connections

- Separate Liaison Statement in TP-000245
- “Car Pooling in the Wireless Lane” considered
- Major problems with “transferring” identity from handheld phone to carphone
  - Carry second smartcard from same operator and insert in car (car environment issues)
  - Transfer secret information from handheld card into in-car card (severe security implications)
  - Enable USIM interface over local wireless link (security implications as whatever encryption is put over this link, it will be broken eventually)

Terminal Capabilities

- Separate Liaison Statement in TP-000198
- Operators concerned that information about Terminal Capabilities is not available in the application layer of the network
- Discussion document prepared to raise awareness and seek solution
- Need for a workshop across WGs?

Application Conformance Testing

- Separate Liaison Statement in TP-000197
- T2 has discussed Conformance testing with respect to MMS
- T2 will develop some tests
- However T2 will need some help from T1 on this

CHPS Features

- Separate Liaison Statement in TP-000244
- T2 believes that there are no major issues
- T2 requests from T1 and S1 slightly more precise information on the requirements

USAT Local Link Mechanism

- Separate Liaison Statement in TP-000243
- T2 is concerned that Bluetooth is the only link considered
- There are security issues related to TP-000245

UE Capabilities Report 21.904

- Separate Liaison Statement in TP-000247
- T2 has produced the final Release 99 update to 21.904
- T2 is not planning to update this report any more

Proprietary Features

- No additional input
- T2 is not planning to work any more on this area

LS from TFO/TrFO Workshop

- T2 also studied LS in TP-000190
- Agreed this needs further study in companies
- => No LS from T2 as yet
- Definition of “UE” is unclear in the LS

New External Fora

- External Fora are being set up which have some overlap with T2
- The latest examples are:
  - MExE Forum (http://www.mexeforum.org)
  - MMS Forum
- T2 wants to encourage technical work to be done within T2 and not in external fora
- Some other activities (e.g. Marketing) are more appropriate to external fora
- T2 will seek PCG approval for Liaison Partnerships with appropriate fora, to enable close working.

Release 4 Status

- MExE Release 4 Content Complete
  - Classmark 3 based on kjava included
  - Security concerns addressed
  - User Profile included
  - Only some minor issues to resolve for March
- UE Capability Requirements Report
  - No further work in T2 planned
- Data Constructs for Rel. 4
  - Needs input from other WGs
- Terminal Local Model
  - Still needs much more work
- MMS Progressing
  - Specification updated to be less WAP-specific
  - IP and WAP implementations in Annexes
  - Streaming added

Key:

Green = Good Progress

Yellow = Some Risk

Red = High Risk

Release 4 Status - cont.

- AT Commands
  - Some recent work on AT commands related to SIM functions
- Alternatives to AT Commands
  - Discussions at Oxford Workshop and follow-on
  - No substantial work in T2
  - A possibility for Release 5 but this depends on getting an agreed framework
- Other items
  - no input on Bearer Modification without pre-notification
  - limited input from VHE groups on terminal aspects of VHE
  - no input on terminal impacts of Location Services
  - no input on application aspects of Ensuring reliable QoS for PS Domain

Release 5 Preview

- MExE Release 5
  - Draft WID almost ready
  - VHE User Profile
  - ECMA “Common Language Infrastructure” Support as Classmark 4
- Terminal Local Model
  - Unlikely to be complete in Release 4
- Synchronisation
  - Smooth Upgrade Path from Release 99 Sync to “SyncML” compatibility
- Multimedia Messaging
  - Further refinements likely to be needed
- Terminal aspects of GTT
- Terminal impact for OSA Enhancements

Future Meetings

- Multimedia Messaging Service adhoc
  - 8-12 January 2001
  - Düsseldorf, Germany
  - Hosted by Mannesmann Mobilfunk
- T2 plenary #12
  - 12-16 February 2001
  - Beverley Hills, California, USA
  - Hosted by American Friends of 3GPP

End of Summary Report

Change Requests for Approval

- MExE CRs in TP-000193 (1/2)

Spec	CR	Rev	Rel	Subject	Cat	Vers-Curr	Vers-New	T2 Tdoc	Workitem
23.057	013		R00	Support of blanket user permission	C	3.3.0	4.0.0	T2-000631	MEXE-ENHANC
23.057	014		R00	Update of WAP version MExE release 4 refers to	C	3.3.0	4.0.0	T2-000632	MEXE-ENHANC
23.057	015		R00	Application version number	C	3.3.0	4.0.0	T2-000633	MEXE-ENHANC
23.057	016		R00	Capability negotiation for browsing	C	3.3.0	4.0.0	T2-000634	MEXE-ENHANC
23.057	017		R00	Addition of the definitions of MExE API and MExE server	D	3.3.0	4.0.0	T2-000637	MEXE-ENHANC
23.057	018		R00	Generic MExE Classmark 1 aspects	D	3.3.0	4.0.0	T2-000639	MEXE-ENHANC
23.057	019		R00	Core software download support	C	3.3.0	4.0.0	T2-000640	MEXE-ENHANC
23.057	020		R00	Application connection information	C	3.3.0	4.0.0	T2-000641	MEXE-ENHANC
23.057	021		R00	Support of journalling	C	3.3.0	4.0.0	T2-000642	MEXE-ENHANC
23.057	022		R00	Support of the user profile	C	3.3.0	4.0.0	T2-000643	MEXE-ENHANC
23.057	023		R00	Capability Negotiation	F	3.3.0	4.0.0	T2-000644	MEXE-ENHANC
23.057	024		R00	Datagram recipient addressing	C	3.3.0	4.0.0	T2-000796	MEXE-ENHANC
23.057	025		R00	QoS support in MExE devices	C	3.3.0	4.0.0	T2-000646	MEXE-ENHANC
23.057	026		R00	Core software download	B	3.3.0	4.0.0	T2-000647	MEXE-ENHANC
23.057	027		R00	RDF and XML References	C	3.3.0	4.0.0	T2-000648	MEXE-ENHANC

Change Requests for Approval

- MExE CRs in TP-000193 (2/2)

Spec	CR	Rev	Rel	Subject	Cat	Vers-Curr	Vers-New	T2 Tdoc	Workitem
23.057	028		R00	Support of VHE	C	3.3.0	4.0.0	T2-000649	MEXE-ENHANC
23.057	029		R00	High level architecture	C	3.3.0	4.0.0	T2-000794	MEXE-ENHANC
23.057	030		R00	Personal Java Reference	C	3.3.0	4.0.0	T2-000666	MEXE-ENHANC
23.057	031		R00	Deletion of unnecessary text	C	3.3.0	4.0.0	T2-000740	MEXE-ENHANC
23.057	032		R00	User Profile CC/PP tags	C	3.3.0	4.0.0	T2-000744	MEXE-ENHANC
23.057	033		R00	Service management	C	3.3.0	4.0.0	T2-000745	MEXE-ENHANC
23.057	034		R00	Classmark 3 non-security and conformance	B	3.3.0	4.0.0	T2-000746	MEXE-ENHANC
23.057	035		R00	Classmark 3 security and conformance	B	3.3.0	4.0.0	T2-000747	MEXE-ENHANC
23.057	036		R00	Update of HTTP RFC Reference	C	3.3.0	4.0.0	T2-000748	MEXE-ENHANC
23.057	037		R00	Table of UAProf tags	C	3.3.0	4.0.0	T2-000752	MEXE-ENHANC
23.057	038		R00	Added Annex about MExE Executable Life Cycle	C	3.3.0	4.0.0	T2-000753	MEXE-ENHANC
23.057	039		R00	Update to security section for R4	C	3.3.0	4.0.0	T2-000754	MEXE-SEC
23.057	040		R00	Conformance Table	B	3.3.0	4.0.0	T2-000755	MEXE-ENHANC

Change Requests for Approval

- Terminal Interfaces and Capabilities CRs in TP-000194

Spec	CR	Rev	Rel	Subject	Cat	Vers-Curr	Vers-New	T2 Tdoc	Workitem
21.904	008		R99	Reflection of the decision to stop work on the TR after December 2000, and miscellaneous editorial corrections	F	3.2.0	3.3.0	T2-000678	UCR
27.007	049		R99	Incorporation of UICC/USIM references	F	3.6.0	3.7.0	T2-000803	TEI

Change Requests for Approval

- Messaging CRs in TP-000195

Spec	CR	Rev	Rel	Subject	Cat	Vers-Curr	Vers-New	T2 Tdoc	Workitem
23.038	005		R00	Data coding scheme value for the Icelandic language	B	4.0.0	4.1.0	T2-000726	TEI
23.140	002		R00	High-level description of MMS	B	4.0.0	4.1.0	T2-000791	MMS

Specification for Information/Discussion

- vObjects and other Constructs for use in Data Synchronisation - TP-000196

- T2 is tasked to produce a specification highlighting the types of data which need to be synchronised
- Locally or between UE and Network Application
- T2 needs information from all groups on any data types required to be synchronised within the UE or between UE and Network
- This is particularly relevant to VHE

Liaison Statements - all

TDOC	Subject
T2-000612	LS to SA5, GSMA on charging / billing in Multimedia Messaging Service (MMS)
T2-000689	LS to T3 cc T, S3 on USAT local link mechanism
T2-000738	LS to S3: MExE group's comments to "MExE security issues"
T2-000770	LS to T3 cc T, SA1: Introduction of features from the CPHS for 3G Rel-4
T2-000772	LS to T1 cc SA1, SA2, SA4, T: Conformance Test Requirements for Application Layers
T2-000773	LS to SA1: MMS stage 1 CRs
T2-000777	LS to SA4: MMS Media Codecs/Formats
T2-000779	LS to SA4: File Format for MMS
T2-000780	LS to SA1 cc CN2, SA5: Support for prepaid in MMS
T2-000786	LS to WAP: Support for prepaid services in MMS
T2-000793	LS to SA3, T, T3, CN1 cc SA, SA1, SA2 on UE functionality split
T2-000797	LS to T1 cc RAN2 on FUTURE PLAN FOR TR21.904
T2-000798	LS reply to the SyncML initiative's responses to T2's Questions Concerning SyncML Technology
T2-000799	LS to WAP WAG Sync cc SyncML initiative requesting 'the Matrix'
T2-000800	LS to WAP Forum cc T3 on Standardised Methods of Identifying ‘Bookmarks’
T2-000801	LS to IrDA cc T3 on Potential Use of IrMC’s vBookmark’
T2-000804	LS to S2, T3, N1, S3 on IMS Storage USIM
T2-000805	LS to CN, SA, T on Terminal capabilities

Liaison Statements - for TSG-T

TDOC	Subject
TP-000243	LS to T3 cc T, S3 on USAT local link mechanism
TP-000244	LS to T3 cc T, SA1: Introduction of features from the CPHS for 3G Rel-4
TP-000197	LS to T1 cc SA1, SA2, SA4, T: Conformance Test Requirements for Application Layers
TP-000245	LS to SA3, T, T3, CN1 cc SA, SA1, SA2 on UE functionality split
TP-000247	LS to T1 cc RAN2 on FUTURE PLAN FOR TR21.904
TP-000198	LS to CN, SA, T on Terminal capabilities