

**Agenda Item:** 5  
**Source:** Rapporteur [Vodafone]  
**Title:** Report of email ad-hoc on ODMA report  
**Document for:** Discussion and Decision

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### Summary

During the last TSG RAN WG2 meeting sufficient time was not available to discuss proposed revisions to the ODMA technical report 25.924. Therefore, it was proposed to have an email discussion and approval of the text. Two messages were submitted on ODMA email ad-hoc requiring clarification on a number of points. These questions and answers are shown below:

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> -----Original Message-----
> From: Alan Law [mailto:alan.law@VF.VODAFONE.CO.UK]
> Sent: 05 August 1999 16:57
> To: 3GPP_TSG_RAN_WG2@LIST.ETSI.FR
> Subject: Re: ODMA Kick-Off Email
>
>
> Dear All,
>
> Please find my comments below - I have marked them with [Vodafone].
>
> Regards,
>
> Alan Law
> Vodafone Ltd
>
> -----Original Message-----
> From: (Clement Fisher) [mailto:Clement.Fisher@ANITETELECOMS.COM]
> Sent: 27 July 1999 13:33
> To: 3GPP_TSG_RAN_WG2@LIST.ETSI.FR
> Subject: Re: ODMA Kick-Off Email
>
>
> Alan
>
> Just a few thoughts and questions in response to your request
>
> 1. I assume that 'seeds' are mains/solar powered and ruggedised mobiles distributed
around the cell coverage area to provide a basic relay capability even when most
mobiles have been switched off (eg overnight).
> [Vodafone] Yes. Although, during the night when most mobiles are switched off
capacity is not as much of an issue and therefore in general direct communications
will not be as limited by interference.
>
> Is the intention to have a hierachical approach, ie use the seeds in preference to
standard mobiles to avoid difficulties such as battery life expectations on customer's
mobiles.
> [Vodafone] Seeds primarily provide background coverage in
> areas where there is a low density of terminals. However, the ODMA algorithm
> (not described in the report) does initially prioritise paths through seeds
> when it is of maximum benefit to the user.
>
>
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> 2. You say that the probing is done in Idle mode. How does the system cope when, say one of the relay nodes (A) is moving and it loses contact with the next link in the chain (B). Presumably A has to revert to full-probing and there will be an increased delay whilst the neighbour information is recalculated. Is this the intention ?  
> [Vodafone] *The neighbour list is constantly updated and should (in most cases) contain a minimum of 5 neighbours. Thus when one path to a neighbour is lost another should be available. The probing level is influenced by the total number of neighbours in the neighbour list, the current connectivity of those neighbours and the gradients to terminating mobiles.*

>  
>  
> 3. When a mobile being used as a relay node starts its own call setup, does the relay node usage continue or does the node become relay-prohibited ?

> [Vodafone] *This will depend on the type of call being setup - if both calls can be maintained then both calls will continue. However, if this is not possible then the originating or terminating bearers will take preference and the routed data will have to find an alternative route.*

>  
>  
> 4. Are there any problems with the increased Doppler that will occur between moving relay nodes ?

> [Vodafone] *Neighbours are gathered based upon the quality of the radio link between neighbour terminals and thus in most cases satisfactory channels should be available.*

>  
> Regards,

>  
> Alan Law  
> Vodafone

>

> > -----Original Message-----

> > From: Alan Law [<mailto:alan.law@VF.VODAFONE.CO.UK>]

> > Sent: 26 July 1999 18:18

> > To: 3GPP\_TSG\_RAN\_WG2@LIST.ETSI.FR

> > Subject: ODMA Kick-Off Email

> >

> >

> > Dear WG2,

> >

> > During the last WG2 meeting in Sophia-Antipolis it was agreed to have an email approval of the 25.924 (ODMA Technical Report) due to the limited time available to discuss the technical reports during the meeting.

> >

> > Please find attached the ODMA TR25.924, (R2-99556) submitted to the WG2#5 meeting in Sophia-Antipolis, containing additional text to address some of the agreed headings within the report. Please take time to read the report and make comments. The deadline for comments is the 10th of August 1999. After which, I will compile a list of items that do not meet the groups approval. Text for which no comments are received I shall assume is acceptable and will remove the change bars in preparation for further text to be supplied at the next meeting.

> >

> > Please feel free to comment or ask any questions on ODMA.

> >

> > Best Regards,

> >

> > Alan Law

> >

> > =====

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> >

> > =====

> > <<Alan Law (E-mail).vcf>> <<R2-99556.zip>>

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> >  
>

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Two more questions

a) Is the intention that the data path is run with transparent/UM RLC or AM ?

b) Assuming that AM will be required, is the intention for each relay node to be 'dumb' ie the ARQ scheme is run end to end simplifying the processing required at each relay node, or do you intend to ARQ each relay hop ?

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A contribution is being prepared to include answers to the last two points via a revision of the ODMA technical report.