

**From:** Bill Gates  
**Sent:** Sunday, July 11, 1999 5:46 PM  
**To:** Harel Kodesh  
**Cc:** Bob Muglia (Exchange); Jim Allchin (Exchange); Mats Wennberg; Thomas Koll; Greg Faust; Jonathan Roberts; Bill Mitchell  
**Subject:** Nokia

While I was at the Allen and CO conference I met with Jurma Ollila CEO of Nokia.

I was totally confused by them licensing their WAP browser to Spyglass. It's a disaster for us to have an effort that is duplicative that we give away while the leaders in the industry move in their own direction.

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Jurma was asking about our strategy for voice recognition servers to make PDAs work a lot better. He sees all networked PDAs as needing a voice recognition server infrastructure (like phones) and that this changes the UI quite a bit. I said I agreed with his view and that we had not factored that into our plans right now. We talked about how voice and screens will come together. I said there were a lot of key scenarios that we our PDA group was patenting around (I wish our activity level here was really as high as I suggested to him).

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**From:** Harel Kodesh  
**Sent:** Sunday, July 11, 1999 10:25 PM  
**To:** Bill Gates  
**Cc:** Bob Muglia (Exchange); Jim Allchin (Exchange); Mats Wennberg; Thomas Koll; Greg Faust; Jonathan Roberts; Bill Mitchell  
**Subject:** RE: Nokia

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2. HDR vs GPRS - we are going through the analysis now. I don't understand where the fraud is. As we and Sprint talk more about it we will do the analysis. Ericsson and Nokia in the past claimed that CDMA is a loser, but at the end 3G is CDMA based. I am not saying that the HDR is the winner and we will do more to understand GPRS - I will take the action item there.
3. the server based scenarios look very compelling, but we are missing some work items to make it really cool. Palm is the clearest threat right now and this is where we spent most of the efforts. I think the efforts is bearing fruits: finally we got the sync technology to the point where it is much better than palm, Casio demonstrated the Video and Audio are huge sellers (and with MSAudio we do have the tie back to our technology). Unfortunately we do not have enough inventory to reach parity and that will be the case until early 2000).
4. There are hotmail/exchange convergence issues here, as well as connectivity back to office. I think we are doing a good job in rapier time frame, but we will have problems with hardware availability and this is what we are trying to fix now. I will work with bobmu on these issues.

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**Sent:** Sunday, July 11, 1999 10:45 PM  
**To:** Harel Kodesh; Bill Gates  
**Cc:** Bob Muglia (Exchange); Jim Allchin (Exchange); Mats Wennberg; Thomas Koll; Greg Faust; Jonathan Roberts; Bill Mitchell  
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Forgot one thing:

We absolutely need to go after other PBX manufacturers and develop the market independently of what Nokia can or cannot do.

I really would like to see us announcing an effort to provide campus communication (ideally with Nokia and others) even though they may fall behind in terms of schedule. The whole offering is not a consumer offering and we will need some lead time to sell it to the enterprise.

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