

DRAFT AGENDA 3/27/17

9:00-11:30 Monday Morning session I  
Montreux 3

09:00 Title: Administrivia & Intro, WG organization & milestones  
Presenter: Chairs  
Slides:

Chairs present status update.  
Status update  
4 Active WG documents  
4 Active MIP6 maintenance

Suresh: 4283MNID draft completely stuck. WG needs to comment. Many have concerns with privacy leaks. Document has too many types. Not sure all of them are needed. Set a deadline.

Sri: Feedback was there when the doc started. Is the concerns from IESG lack of security text?

Suresh: Clarify if the document will be useful. It's your call.

Charlie: Waiting for comments. Clearly useful. People requested adding types. If there is no support I am ok removing from the document.

Sri: How to decide which identifiers to keep, which to take out?

Charlie: WG and in particular folks asking for types to be added.

Suresh: Set deadline in a month. RFID, as example, difficult to justify.

09:15 Title: Protocol for Forwarding Policy Configuration (FPC) in DMM  
Time: 10 minutes  
Presenter: Satoru Matsushima  
Draft: <https://tools.ietf.org/html/draft-ietf-dmm-fpc-cpdp-07>  
Slides:

<Marco Liebsch presents and cannot take notes>

Suresh: clarify on next hop SR/SFC

09:25 Title: On Demand Mobility Management Socket Extensions  
Description: Update on changes to the draft since IETF 97  
Time: 15 minutes  
Presenter: Danny Moses  
Draft Reference: draft-ietf-dmm-ondemand-mobility-10

Danny presents socket extension draft.  
V07 had WG last call, went to IESG for review.  
Last IETF decision to merge a related draft. Draft pulled back to WG.  
Good comments received from WG.  
Several changes made.

Discussion items (reason for delaying WG last call)

Blocking vs non-blocking functions. Setsockopt() is non-blocking. With new feature demand for blocking while waiting for an IP address.  
3 alternatives:

- Define a new function, not use setsockopt()
- Keep using setsockopt() but add new options
- Leave the OnDemand flags under IPV6\_ADDR\_PREFERENCE option type.

Danny's preference is option 2.

Would not like to add a new socket function. Too much impact.

Lorenzo: Not ok to make setsockopt() blocking. Only thing it does is setting some flags in the kernel. It has to be somethings else. You need to use something that's more control plane like. Blocking could wait forever.

Suresh: setsockopt() is not made for that. If you do this in asynchronous way it's ok.

Danny: There are other socket functions that don't return immediately. Waiting for ACK,

Suresh: How to implement?

Danny: No text in draft how to implement. Socket interface has options for blocking. We can go non-blocking and then have callback when done.

Suresh: You can use netlink.

Eric K: You need a separate function. Setsockop() to say I require a mobility prefix. If I try to connect it fails if address not available yet. Before calling connect: Make other function call to see if the address is assigned.

Danny: setsockopt() to start the procedure? More clarification needed. Follow up offline.

David Dolson: Proposal is disconnected from what people think implementations should work. Need something that's compliant to how implementations should be done.

Suresh: Application sets flag. If the address exists it has nothing to do with setsockopt(). Other call could use that request. This is only to set an option to a socket.

Sri: Take it to the list.

Lorenzo, add to Suresh: setsockopt() is not synchronous, it just sets flags. Just to say I need a certain address.

Dapeng, summary: setsockopt() to set preference. If connection is used if may fail.

Eric K: connect/send may come back with an error if address not available. All of setsockopt(), send, connect should not trigger a network protocol to retrieve address. Getaddrinfo(), as example, can initiate the procedure

Suresh: you cannot wait until the address is done. It's probably a new function that waits until you do connect.

Danny: Will post a mail to continue discussion.

Sri: List all options that have been discussed.

Danny there is one option only that people here liked.

Dapeng: You may try to implement to see if it works.

Danny: You need the support from the network. It cannot be implemented.

Sri: Get feedback from community who implement this.

<Danny continues with slides>

Support future on-demand types.  
Bit for each type of service. Proposal: 3 bit flags used for 7 types.  
Similar things done in 3GPP. SSC Mode 3 not supported in this draft.  
Need extensibility.

Time: 10 minutes  
Presenter: Danny Moses  
Draft Reference: draft-moses-dmm-dhcp-ondemand-mobility-05

Danny: Extensions to DHCP for clients to request a certain type of address. Lorenzo asked to remove the request of an address but prefix. Text changed. RFC7934 added as guideline how to request addresses.

Suresh: Concern how this uses DHCP. Server behavior change required. Check with DHC group.

Lorenzo: How does the doc justify the use of IP addresses. Does not follow BCP.

Sri: in the context of MIP we adopt the model where the MN gets a prefix.

Danny: DHCP supports requesting addresses.

Alex: We talk about IP address that's continued. What's the tool to request an address?

Eric K: Application might request an address. Host requests a prefix. Separate function builds address.

Danny: Agree. Maybe there will be a case where the client needs to ask for an address, not a prefix.

Lorenzo: Then I suggest to use all DHCP options. Add this tag to all of them.

Suresh: We have to handle Home Network Prefixes (HNPs), not addresses. You put additional requirements on the DHCP server.

Danny: Remove request of specific IP address.

Sri: Let's see how to address Alex's use cases.

Alex: Argument of DHCP protocol allocating addresses should be enough to mention in this document.

Sri: In the context of mobility we need prefix. Does not matter if DHCP supports addresses in other context.

Suresh: Many things built around the 64 bit prefix. DHCP has many options and use cases. Different things happen in mobile. Even NEMO uses prefixes.

Alex. Prefixes if ok. 64 to be discussed.

Lorenzo: What justifies going against the BCP. We should have very solid use cases. Argue hay it's not enough to give the mobile a prefix. I don't belief that you'll construct this text.

Danny: Still I'd like to ask for WG adoption.

Sri: Ask for DHC WG feedback first.

Danny: Isn't there more value in going there with a WG draft?

Suresh: I can help you in submitting an individual draft to DHC.

09:50 Title: ICMPv6 RA/RS extensions for On-Demand Mobility  
Description: To discuss whether there is interest from the group to look at on-demand mobility extensions for the ICMPv6 Router Advertisement / Router Solicitation messages.

Time: 10 minutes  
Presenter: Wu-chi Feng  
Draft:

Slides:

Wu-chi presents.

Mobile applications differ with respect to their IP address.

Related work in DMM

This work would pursue similar specification through RA/RS

Interest in exploring RA/RS, which is traditionally used to get information to mobile node.

Suresh: There is no draft but it's a bad idea. Past work had less extensions but was difficult to get through. How to handle nodes that ask for different things? How to trust? Look at all the stuff in other groups and why it failed. There is lot of opposition since this uses RA/RS how it's used.

Wu-chi: Started to use RA in 3GPP in a non-standard way. It's 23 TS...

Suresh: Send a pointer to the document. We have a liaison. Need official work.

Wu-chi: This is what I want to see.

Eric K: RS/RA not made to request a new feature. You could say in RA there are different prefixes, but not on-demand.

Suresh: 3GPP should not spoil on code points. They need to come with IANA request. 3GPP is a friendly organization. Let's talk.

Wu-chi: Will send mail to mailing list.

Suresh: Thanks for letting us know that.

Danny: They do not violate but massage IETF stuff. They don't use RS. Use different stuff to request, but use RA to deliver. They don't use DHCP as it did not support allocation of prefixes.

Lorenzo: There are people in 6man working on prefix coloring. Similar properties. If this is request/response, RS/RA has different semantics. RS/RA made for things that do not change.

Suresh: RFC7066 how DHCP is used. Have a look.

10:00 Title: Distributed Mobility Anchoring  
Presenter: H Anthony Chan  
Time: 10 minutes  
Draft: <https://tools.ietf.org/html/draft-ietf-dmm-distributed-mobility-anchoring-03>

Anthony summarizes update.

Comment from Alex about nemo missed.

Different modes, move to new network and keep/give up old IP address. Rest of work for WG to review and comment.

Sri: we need good reviews on this document. Editorial but also technically.

Volunteers: Reviews: Marco, Carlos, Seil

10:10 Title: Stateless mobility functions  
Presenter: Seil Jeon  
Time: 15 minutes  
Draft: <https://www.ietf.org/internet-drafts/draft-sijeon-dmm-stateless-mobility-function-00.txt>  
Slides:

Seil presents:  
Stateless mobility functions.  
Motivation: NFs are stateful.  
Decoupling state from function eases scalability.  
3GPP mentions stateless NF.  
Trials to be considered, mobility anchor switching, smooth gateway relocation, failover.  
Next: investigate use cases and write problem statement.

Dapeng: Difference to CPDP draft in DMM?

Seal: Goes further.

Praveen Muley: we tried, great benefit.

Marco: implementation for state externalization exist in other context. Do you see standardization need? Or implementation specific?

Seil: needs clarification. Investigate use cases

Prakash S: We'd like to collaborate.

Satoru: Do you have specific Data-Plane technology in mind?

Seil: PMIP

Satoru: GTP and GRE key require specific operation.

Praveen M.: Data-Plane is far more complex problem. Better place will be make Control-Plane stateless.

10:25      Title: Virtual CPE Deployment Considerations  
            Presenter: Byju Pularikkal  
            Time: 10 minutes  
            Draft: <https://tools.ietf.org/html/draft-pularikkal-virtual-cpe-02>  
            Slides:

Byju presents.

New work item for proposal.  
vCPE lot of traction.  
Simplify CPE device at customers.  
Act as reference material for vCPE based architecture.  
Document generic solution requirements.  
Cover key deployment considerations.  
Leverage FPC spec.  
Introduces 3 architecture models.  
FPC capabilities required: Current can be used for PMIP  
Discuss and solicit comments.

Dapeng: Need extensions to current FPC? Any feedback from editors?

Liang ?: How related to DMM charter? 3rd model clear because of CPDP separation. Other models?

Suresh: Could do it, but no milestones. Now it's not in scope. Need to take out stuff that does not belong here.

\*\* MIP maintenance track \*\*

10:35 Title: Mobility Ability Negotiation

Description: Different mobility management protocols have different functional requirements on the network element or the terminal and then a scheme should be used in order to support the negotiation and selection of adopted mobility management protocol when a terminal accesses to a new network. This draft analyzes this issue.

Time: 10 minutes

Presenters: Zhiwei Yan

Draft Reference: <https://tools.ietf.org/html/draft-yan-dmm-man-00>

Anthony presents on behalf:

Many extensions on MIP, PMIP, HMIP, etc.  
Two categories: network-based, host-based.  
All co-exists.  
Example scenarios.  
Principles of MAN; Mobility Ability Negotiation

Carlos Bernardos: We did work in the past to compare mobility protocols. Maybe useful. Will send a pointer to the paper.

Sri: MN-AR interface intended for MN to negotiate protocols. Are you thinking about a new interface?

Anthony: only new messages.

Sri: this work overlaps with the MN-AR work. Have a look.

Suresh: NetLMM did this work. Have a look. Sri will send a pointer to the draft. No approved document.

Additional Topic: Fred Templin about Simple BGP-based mobile routing system for aeronautical telecommunications network.  
Draft-templin-atn-bgp

Fred presents.  
ICAO building an IP-based network system for worldwide Air Traffic management (ATM).  
3 candidate solutions: PMIP, ground-based LISP, BGP-based overlay (this document).  
Draft available, will be presented at ICAO WG-I mobility subgroup in Montreal, May 15.

Eric K: How the prefix is allocated?

Fred: Each plane gets /56 prefix. Plane keeps prefix.  
ICAO gets a small prefix, ICAO then build /56 based on plane serial number.

Suresh: I am concerned about routing table. Prefix is advertised when plane crosses over a region.

Fred: Draft explains, has been modeled  
Intra domain mobility and inter-domain mobility

Suresh: Discuss with IDR group.

Eric K: Authentication in BGP.

Fred: IPsec tunnel between routers.

10:45 Adjourn

