

# PPVPN WG

- Chair(s):
  - Rick Wilder [rwilder@zephion.net](mailto:rwilder@zephion.net)
  - Marco Carugi [marco.carugi@francetelecom.fr](mailto:marco.carugi@francetelecom.fr)
- New Sub-IP Area, ADs : Scott Bradner, Bert Wijnen
- Technical Advisor : Rob Coltun
- **Mailing List** (changed this week, some problems in the past should now be solved)
- Discussion: **[ppvpn@zephion.net](mailto:ppvpn@zephion.net)**
- (Un)Subscribe: **[ppvpn-request@majordomo.zephion.net](mailto:ppvpn-request@majordomo.zephion.net)**  
with (un)subscribe in the body of the message
- **Archive and other documents** (WG minutes, presentations, drafts, ITU related stuff) :  
**<http://nbvpn.francetelecom.com>**  
(hopefully it will move soon to [//ppvpn.francetelecom.com](http://ppvpn.francetelecom.com))

# PPVPN Minneapolis agenda

**Focus on requirements and framework issues, no discussion on specific approaches/technologies**

- Agenda bashing, Sub-IP Area, charter/milestones 5 min - chairs
- PPVPN Service requirements 20 min - Dave McDysan
  - draft-ietf-ppvpn-requirements-00.txt - overview, open issues
- PPVPN Framework 20 min - Ross Callon, Muneyoshi Suzuki
  - draft-ietf-ppvpn-framework-00.txt - overview, open issues
- A PPVPN Layer separation 10 min - Tom Worster
  - draft-worster-ppvpn-layers-00.txt - issues in relation with framework
- Use of IPSEC with PPVPN 10 min - Bryan Gleeson
  - draft-gleeson-ipsec-ppvpn-00.txt - security issues
- Security analysis of MPLS architecture 5 min - Michael Behringer
  - draft-behringer-mpls-security-00.txt - just VPN-specific requirements
- BGP/MPLS VPN security extensions 5 min - Jeremy De Clercq
  - draft-declercq-bgp-mpls-vpn-sec-ext-00.txt - just general requirements

# PPVPN Minneapolis agenda - cont.

- Whither L2 VPN 5 min - Ron Bonica
  - draft-kb-ppvpn-l2vpn-motiv-00.txt - just requirements
- BGP-based auto-disc. mech. for Optical VPNs 5 min - H. Ould-Brahim
  - draft-fedyk-bgpvpon-auto-00.txt - optical VPN ref model and related requirements
- VPN tunnel systems 5 min - Heinrich Hummel
  - draft-hummel-ppvpn-tunnel-systems-00.txt - just requirements
- Virtual Metropolitan Internetworks 10 min - Tissa Senevirathne
  - draft-senevirathne-vmi-frame-00.txt - requirements, issues, models for VMI
- PPVPN interworking 5 min - Junichi Sumimoto
  - draft-kurakami-ppvpn-interworking-00.txt - just requirements

# PPVPN Minneapolis agenda - cont.

- IP VPN Policy info model 10 min - Mahadevan Iyer
  - draft-iyer-ipvpn-infomodel-req-00.txt, draft-iyer-ipvpn-infomodel-00.txt
  - issues in relation with requirements and framework
- PPVPN info model 10 min - Riccardo Scandariato
  - draft-scandariato-ppvpn-info-model-00.txt - issues in relation with requirements and framework
- ITU related work 10 min - Wai Sum Lai, Marco Carugi
  - SG2 VPN TE , SG13 Y.1311.1/1311 update
- Future WG items 10 min - chairs
  - Applicability Statements, WG documents, plan for London, ...

# PPVPN WG charter

Defining and specifying a limited number of sets of solutions for supporting PPVPNs

- development of a framework document
  - The framework will define the common components and pieces that are needed to build and deploy a PPVPN. Deployment scenarios will include provider-managed VPN components located on customer premises
- development of a service requirements document
  - requirements that individual PPVPN approaches must satisfy from a Service Provider (SP) perspective
  - attention on security, privacy, scalability and manageability
  - not intended to define the requirements that all approaches must satisfy, but to become a "checklist" of requirements, not all of which will be required in all deployment scenarios
  - provide a consistent way to evaluate and document how well each individual approach satisfies the individual requirements

# PPVPN WG charter (cont.)

- development of several individual technical approach documents that group technologies to specify specific VPN service offerings
  - a small number of approaches based on collections of individual technologies that already exist
  - Goal : to foster interoperability among implementations of a specific approach. Standardization gauged on (I)SP support.
  - Not a goal of this WG to develop new protocols or extend existing ones. The purpose is to document and identify gaps, shortcomings in each approach with regards to requirements.
  - In the case that specific work items are identified, such work will be done in an appropriate WG. Taking on specific protocol work items in this WG will require rechartering.
  - at least three specific approaches including BGP-VPNs (e.g. RFC 2547), virtual routers and port-based VPNs (i.e., where the SP provides a Layer 2 interface, such as Frame Relay or ATM, to the VPN customer, while using IP-based mechanisms in the provider infrastructure to improve scalability and configurability over traditional L2 networks).

# PPVPN WG charter (cont.)

- Consideration of inter-AS (SP) VPNs
- Each technical approach document will
  - evaluate how well it meets the requirements (req. doc)
  - address scalability and manageability issues, operational aspects
  - analyze the threat and security aspects of PPVPNs, including appropriate mandatory-to-implement technologies and management mechanisms to ensure adequate security, privacy of user data.  
Analysis will include cryptographic security from customer site to customer site using IPSEC.
- An applicability statement for each approach
  - describing the environments in which the approach is suitable for deployment, including analysis of scaling impact of the approach on SPs and threat analysis
- Coordination with IETF PWE3 and ITU-T efforts

# Coordination with ITU-T and PWE3

- ITU-T : see related slot in agenda
- After the PWE3 BOF on Wednesday :
  - PWE3 charter proposal will clearly include “work in coordination with the PPVPN WG”
    - avoid overlapping, avoid mutual imposition of constraints
  - PWE3 chairs will submit the charter proposal to the pwe3 list, I asked Luca to distributed it to the ppvpn list too
  - PWE3 will basically work on encapsulation and e-2-e signaling
  - **clearly identify asap if and where overlapping may happen**
    - sensible area : encapsulation for L2 VPN (Kompella draft), what else ?
    - **please comment on the list**

# Goals and Milestones

- **DONE :**

- Formulate a plan and begin approaching SPs for input on scaling and other requirements
- Begin discussion (based on submitted IDs) on candidate approaches against the service requirements
- Begin discussion of the framework and the service requirement documents (two design teams formed, an interim meeting was held)
  - 2 IDs (moved to WG documents in agreement with ADs) :  
framework ID, requirements ID

- **NOT DONE :**

- Identify a limited set of candidate approaches, build design teams
- Mar 01: Begin discussion of applicability statements
- Aug 01 : Submit framework, req IDs to IESG -> Info RFCs
- Mar 02 : Submit candidate approaches, applicability statements to IESG for publication
- Mar 02: Charter update or WG disband

# Administrativa

- I asked Ananth Nagarajan to take minutes as in San Diego
- Blue sheets
- Speakers please :
  - respect time
  - focus on requirements and framework issues
  - no presentation of your IDs, just content overview
  - later, send me by e-mail your presentation (they will be posted on the PPVPN informal server)

# Next steps from now

According to our milestones

- **REQ and FRAME IDs : continue work for Info RFCs after London (tight schedule)**
  - some work already planned by the two design teams
    - missing sections, alignment, revision/enhancements to current text
  - **PLEASE COMMENT ON THE LIST FROM NOW (on various pieces of work) (Requirements from Providers, etc.)**
  - need to complete or solve open items
  - addition of other req-specific/framework-specific contributions on these topics (no solution content in these contributions)
  - **OBJECTIVE : INTEGRATE ALL AGREED STUFF IN THE TWO IDs BEFORE LONDON CUTOFF (July 20)**
    - **intermediate req/frame IDs(01), related contributions: June 15**
    - **comments on the list and draft finalization (02) before cutoff**

# Current missing/open items

- **REQ ID**

- Dave presentation's bullets
  - QoS approaches, needed SLAs/SLses, L2 VPN requirements, management and service creation/provisioning, needed identifiers, ...
- other bullets from today's meeting ?
  - Info model requirements, ...

- **FRAME ID**

- Ross/Muneyoshi's bullets
  - L2 stuff (model, ...), network and customer management, ...
- other bullets from today's meeting ?
  - layer separation, Info model, ...
- Optical VPN req.s/model, Metro Internetworking stuff : in ?

# The work on the various approaches

- We've a bunch of existing drafts on the various approaches, others are coming/will come
- Quite premature in this logic of process to select now the candidate approaches - how, how many (even if everybody has an idea on that) - before the requirement and framework consolidation
- So let's advance requirements and framework as quick as possible
- On the other side, there is large consensus among Providers and Customers that the PPVPN work will provide added value moving the identified approaches to standard track (not just Informational RFCs)

# Work on approaches - cont.

- **A possible plan from now (in agreement with Scott B.) :**
  - **selection of candidate approaches (C-APPs) some time before London (at the time when REQ, FRAME 01 versions will be submitted - Half June)**
    - select ONE (hopefully) BASIC WG document for each C-APP (existing IDs used where possible)
    - current issue : no PP CPE-based VPN basic document exists (but it's a very probable C-APP), work should start now
    - group existing IDs into one set for C-APP
  - **start work and discussion on IDs related to the various C-APPs**
    - enhancement proposals based on requirements
    - alignment with the framework structure
    - a clear distinction of the protocol specification section inside each C-APP set of documents will probably help for the future (reminder : the group has no mandate to validate protocol enhancements)

# Work on approaches - cont.

- **London and further (see milestones):**
  - agreement on deliverables for each C-APP
  - continue discussion on C-APP IDs, integration of new agreed contents inside the respective set of C-APP WG documents
    - contents specifically related with protocol enhancement proposals could be also integrated in the appropriate WG document set (as approach-specific answers to some requirements), but the actual validation of these contents in terms of protocol specifications will have to be managed via the appropriate WG(s)
    - again, a clear separation of protocol specifications for each additional content will help on managing these protocol specs via other WGs
  - one Applicability Statement (AS) document for each C-APP will have to be finally produced
    - it could possibly include the no protocol-specific part of the C-APP specification

# What we could do in the meanwhile (before selection of approaches)

- **Produce a first version of Applicability Statements (AS) based on the current Framework classification :**
  - **PP CPE Based VPNs**
  - **PP Network Based Layer 3 VPNs**
  - **PP Network Based Layer 2 VPNs**
- ASes are definitely one of the ultimate goals of our PPVPN effort (where the various approaches are suitable, how to apply with the pros and cons, the best way to engineer a VPN solution based on the specific needs, the scaling and security aspects)
- These first AS documents
  - just a starting point for AS work (using current req and frame input)
  - very useful for the next phase (one AS ID for C-APP)
  - based on Volunteers (asap), a mix of Vendors and Providers in each document would be great
  - structure to be discussed, submission for London 00-ID cutoff ?

# What we should have for London

- Consolidate REQ and FRAME IDs (prepare Info RFC process)
- One WG document for each C-APP
  - including the PP CPE-based VPN approach
- 3 starting AS drafts based on current framework classification (CPEVPN, L3NBVPN, L2NBVPN)
- Other contributions that we may expect
  - all work related to the various C-APPs and based on produced requirements

Your comments on that ?

Here, on the mailing list