Welcome to prpl Summit 2023
Welcome to prpl Summit 2023!
# Agenda – October 23rd AM

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker / Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00 - 09:15</td>
<td>Registration, Coffee and Demos Set-up</td>
<td></td>
</tr>
<tr>
<td>09:15 - 09:45</td>
<td>Introduction to prpl Foundation and to prplWare</td>
<td>Dave Barr, Chair of prpl Technical Steering Committee and Board member.</td>
</tr>
<tr>
<td>09:45 - 10:00</td>
<td>Demos Overview</td>
<td>Paul Keator - Dish Network, Sr. Engineering Manager, Broadband Systems &amp; prpl Foundation Gold Board Director</td>
</tr>
<tr>
<td>10:00 - 13:00</td>
<td>MORNING SUMMIT</td>
<td></td>
</tr>
<tr>
<td>10:00 – 10:15</td>
<td>prpl Ambitions and Mission</td>
<td>Dr. Leonard Dauphinee – prpl Foundation President, VP and Chief Technology Officer Broadband Group at MaxLinear</td>
</tr>
<tr>
<td>10:15 – 10:30</td>
<td>prpl – a Global Home Software Platform</td>
<td>Bruno Zerbib – Orange Chief Technology &amp; Innovation Officer</td>
</tr>
<tr>
<td>10:30 – 10:50</td>
<td>How Orange commits to a Sustainable Home</td>
<td>Koen Vermeulen – Orange Group CIO &amp; Senior Vice President Orange Innovation IT &amp; Services</td>
</tr>
<tr>
<td>10:50 – 11:00</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enhancing the Smart Home Ecosystem with prpl values</td>
<td>Moderator: Livia Rosu – MaxLinear Sr. Strategy, prpl Foundation Marketing Co-Chair</td>
</tr>
</tbody>
</table>
# Agenda – October 23rd AM

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Participants</th>
<th>Moderators</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30 – 12:00</td>
<td><strong>App Developers ROUNDTABLE</strong></td>
<td>Sergio Campos - Beegol&lt;br&gt;George Trif - Bitdefender Engineering Director for Connected Home, Security Team&lt;br&gt;Bob El-Hawary - Cognitive EVP Global Sales&lt;br&gt;Magnus Almquist - Cyber adAPT Vice President Business Development &amp; Sales&lt;br&gt;Knut Joar Strømmen - Domos Senior Developer&lt;br&gt;Joe Valencia - Origin AI Chief Product Officer&lt;br&gt;Yaron Benita - SAM Seamless Network VP R&amp;D</td>
<td>Moderator: Wojtek Makowski – Orange Vice President CPE Ecosystem</td>
</tr>
<tr>
<td>12:00 – 12:30</td>
<td><strong>SoC manufacturers ROUNDTABLE</strong></td>
<td>Dr. Leonard Dauphinee – MaxLinear VP and Chief Technology Officer Broadband Group &amp; prpl Foundation President&lt;br&gt;Wayne Daniel – Qualcomm Technologies, Sr. Director Technology &amp; prpl Foundation Silver Board Director&lt;br&gt;James Chen – MediaTek Vice President Product Technology Marketing&lt;br&gt;Bill Reysen – Cortina Senior Director Marketing</td>
<td>Moderator: Paul Keator – Dish Network, Sr. Engineering Manager, Broadband Systems</td>
</tr>
<tr>
<td>12:30 – 13:00</td>
<td><strong>Standards Organizations ROUNDTABLE</strong></td>
<td>Jason Walls – Broadband Forum (BBF) Connected Home Council Chair&lt;br&gt;Tiago Rodrigues – Wireless Broadband Alliance (WBA) President &amp; CEO&lt;br&gt;Tobin Richardson – Connectivity Standards Alliance (CSA) President &amp; CEO&lt;br&gt;Brian Mecum – Connectivity Standards Alliance (CSA) Board Director &amp; Verizon Vice President–Device Technology Organisation</td>
<td>Co-Moderators:&lt;br&gt;Marianne Mohali – Orange Innovation Head of the Networks Strategy Department&lt;br&gt;Randy Zimmler - Verizon Technical Product Management</td>
</tr>
<tr>
<td>13:00 - 14:00</td>
<td><strong>Lunch / Networking + Demos Display</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Speaker/Details</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>14:00 – 17:15</td>
<td>AFTERNOON SUMMIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00 – 14:15</td>
<td><strong>A Seamless Evolution: SAM’s Journey With prpl</strong></td>
<td>Jeff Holleran – <strong>SAM Seamless Network VP Product</strong></td>
<td></td>
</tr>
<tr>
<td>14:15 – 14:30</td>
<td><strong>Unleashing prpl by transforming the home gateway ecosystem for home services revolution</strong></td>
<td>Marc de Courville – <strong>SoftAtHome VP Engineering</strong></td>
<td></td>
</tr>
<tr>
<td>14:30 – 14:45</td>
<td><strong>Leveraging Open Source/prpl &amp; Standards for Operator Managed Wi-Fi</strong></td>
<td>Metin Taskin – <strong>Airties Co-CEO and Founder</strong></td>
<td></td>
</tr>
<tr>
<td>14:45 – 15:00</td>
<td>Coffee break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:15 – 15:30</td>
<td><strong>Beyond Bandwidth: Wi-Fi Sensing as the Next Frontier for ISPs</strong></td>
<td>Tony Nicolaids – <strong>Origin AI Chief Commercial Officer</strong></td>
<td></td>
</tr>
<tr>
<td>15:30 – 15:45</td>
<td><strong>Navigating the Chessboard of the prpl Ecosystem</strong></td>
<td>Sebastian Silva, <strong>Vantiva Director SW Product Management</strong></td>
<td></td>
</tr>
<tr>
<td>15:45 – 16:00</td>
<td>Coffee break</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 16:00 – 17:15 | **prpl Working Group Updates Session**                                 | Moderator: Dave Barr – prpl Technical Steering Committee (TSC) MaxLinear Director of Standards Engineering  
Certification Technical WG Chair – Timothy Winters  
prpOS WG – Olaf Wachendorf  
prplMesh WG – Frederik Van Bogaert  
Low-Level API WG – Wouter Cloetens  
LCM Life-Cycle Management WG – João Freitas  
prplSecurity Assurance WG – Brendan Black, Evgueni Tzvetanov  
High-Level API WG – David Cluytens  |
| 17:15 - 17:30 | Announcement of the prpl Awards                                      |                                                                                |
| 17:30 – 18:00 | Free time for Demos on Display                                       |                                                                                |
Experience prpl at NetworkX

**PRPL SUMMIT**
08:00 – 17:30 CET
Orange HQ
Open to public
Registration required

**ORANGE Cocktail**
18:00 – 20:00 CET
Orange HQ
Restricted by invitation
(Operators & prpl Board only)

**PRPL SUMMIT**
14:00 – 16:00 CET
Orange HQ
Restricted (Operators & SoC only) registration required

**prpl Operators & SoC Alignment Meeting**

**Pavan/Verizon**
speaking about value of prpl
14:30 – 14:45 CET

**Sophie/Orange & Heather/Verizon**
speaking about value of prpl
16:20 – 16:35 CET

**prpl Operators & SoC Alignment Meeting**

**Dr. Len Dauphinee, President, prpl Foundation**
16:00 – 16:15 CET

**prpl Operators & SoC Alignment Meeting**

**Operators Roundtable**
Paul/Dish, Wojtek/Orange, Randy/Verizon, Josh/AT&T
moderated by Livia/MaxLinear
16:45 – 17:15 CET

**prpl WG Technical Workshop**
08:30 – 17:30
Orange HQ
Restricted (prpl Members only) registration required

**prpl Awards Ceremony & Cocktail**
17:30 – 20:00
Restricted (prpl Members only)
Orange HQ

**Operator Roundtable**
Paul/Dish, Wojtek/Orange, Randy/Verizon, Josh/AT&T
moderated by Livia/MaxLinear
16:45 – 17:15 CET

**Mon, October 23rd, 2023**

**Tue, October 24th, 2023**

**Wed, October 25th, 2023**
Introduction to prpl Foundation and to prplWare
Who is prpl Foundation?

Community of like-minded architects, SMEs and developers from across the CPE ecosystem:
Service Providers
OEMs
System Integrators
SoC vendors
Application Developers
What does the prpl community do?

Healthy Collaboration and Harmonization, then Commonization into:

Open APIs
Open Source
Open Industry Standards

\[ \text{prplWare} = \text{Standards-Based Open-Source and Open APIs} \]

prplFoundation.org/What-prpl-Does/
How is prpl Foundation organized?

**Board of Directors** (AT&T, Charter, CommScope, Dish, MaxLinear, Orange, Qualcomm, SoftAtHome, Verizon, Vodafone & BBF)

- Product Steering Committee
- Technical Steering Committee
- Marketing Committee

**Product Steering Committee (PSC)**
- Chaired by prpl’s Service Provider members
- Contributions & participation from any/all prpl members
- Reviews project proposals & aggregates Roadmap wish-lists
- Sets Business Requirements & priorities for developments
- Aligns sponsors for new developments

TSC is where TWG Chairs coordinate the work of their TWGs
- Roadmaps, Architectures, WG procedures,…
- Charter new TWGs when needed
- Decision-making when there’s lack of consensus in TWGs
- Coordination with BBF, WBA, WFA, CSA, RDK when needed (e.g., tighten-the-loop from Standards-to-implementations)

**Operators Call**
- Any/all service providers can attend—no need for prpl membership
  (can see how prpl benefits the ecosystem from Operators’ perspective)
  (contact prpl Operations Manager: Shelly.Coen@prplFoundation.org)

**TWGs**
- SP/OEM/3rd-party portable GW Apps & Services
- prpl High-Level API (extends BBF USP and TR181)
- prplOS (Carrier-grade Middleware)
- prplMesh Wi-Fi
- prpl Low-Level API (including QoS & HW-Offload)
- Linux-based router OS
- SoC vendor BSP
prplWare Service-Delivery Platform Stack

3rd-party innovation/differentiation → Next-Gen SoCs (Wi-Fi 7/6E, xPON, …)

Premium Sponsors

maxLinear Qualcomm
prplWare Service-Delivery Platform Stack

3rd-party innovation/differentiation

prpl Low-Level API (HW-agnostic)

Next-Gen SoCs (Wi-Fi 7/6E, xPON, ...)

prpl-Certified BSP compliance
prplWare Service-Delivery Platform Stack

- prpliOS Gateway Services
  - Carrier-Grade Middleware
- prplMesh Wi-Fi
- prpl Low-Level API
  - (HW-agnostic)
- 3rd-party innovation/differentiation
- Next-Gen SoCs (Wi-Fi 7/6E, xPON, ...)

prpl-Certified BSP compliance
prplWare Service-Delivery Platform Stack

prpl High-Level API (Data Model & USP Broker)

| prplOS Gateway Services Carrier-Grade Middleware | prplMesh Wi-Fi |

prpl Low-Level API (HW-agnostic)

Next-Gen SoCs (Wi-Fi 7/6E, xPON, …)

3rd-party innovation/differentiation

prpl-Certified

prpl-Certified

BSP compliance
prplWare Service-Delivery Platform Stack

- **prpl LCM** Life-Cycle-Managed Containers
- **prpl High-Level API** (Data Model & USP Broker)
  - prplOS Gateway Services Carrier-Grade Middleware
  - prplMesh Wi-Fi
- **prpl Low-Level API** (HW-agnostic)
  - Next-Gen SoCs (Wi-Fi 7/6E, xPON, …)

**Infrastructure**
- prplWare common open-source infrastructure
- 3rd-party innovation/differentiation

**Certifications**
- prpl-Certified
- prpl-Certified BSP compliance
prplWare Service-Delivery Platform Stack

3rd-party Value-Add Apps & Services (running isolated in LCM Containers)

- **prpl LCM** Life-Cycle-Managed Containers
- **prpl High-Level API** (Data Model & USP Broker)
  - prplOS Gateway Services
  - Carrier-Grade Middleware
- **prpl Low-Level API** (HW-agnostic)
  - Next-Gen SoCs (Wi-Fi 7/6E, xPON, ...)

prpl-Certified App Store

prpl-Certified

prpl-Certified BSP compliance

3rd-party innovation/differentiation

prplWare common open-source infrastructure

MaxLinear Qualcomm
prplWare Service-Delivery Platform Stack

- **3rd-party innovation/differentiation**
  - Remote Management & Orchestration via HL-API (Data Model & USP, TR-069)
  - 3rd-party Value-Add Apps & Services (running isolated in LCM Containers)

- **prpl LCM** Life-Cycle-Managed Containers
- **prpl High-Level API** (Data Model & USP Broker)
  - prplOS Gateway Services
  - Carrier-Grade Middleware
  - prplMesh Wi-Fi

- **prpl Low-Level API** (HW-agnostic)
  - Next-Gen SoCs (Wi-Fi 7/6E, xPON, ...)

- **3rd-party innovation/differentiation**

- **prplWare common open-source infrastructure**

- **prplCertified**
  - App Store
  - Life-Cycle Managed Containers

- **3rd-party Value-Add Apps & Services**

- **BSP compliance**
2023 prpl Roadmap Successes

- Pivoted to next-gen SoCs on carrier-grade HW platforms for CI/CD
  - MaxLinear, Qualcomm (Broadcom from 2022)
- SDK for LCM-Containerized Applications exercising High-Level APIs
  - LCM = Life-Cycle Management for remote download, install, updates,…
  - RBAC = Role-Based Access Controls
  - High-Level APIs for:
    - Cyber-Security Apps
    - Diagnostic Monitoring/Analytics Apps
    - Wi-Fi Sensing Apps and CSI-Socket Infrastructure
  - High-Level APIs were made dynamic and composite
- BBF’s open-source OB-USP-Agent extended to latest USP v1.3
- prplMesh = Compliant Portable Superset of WFA EasyMesh Standard
  - HW-independent support for Wi-Fi 6, EasyMesh R5 and Data Elements
  - Virtual BSS-per-Client = novel R5 Steering feature developed with CableLabs
- RDK-B now natively supported by both prplMesh and prpl LCM
  - R-Bus IPC supported by prpl Bus Abstraction Library (Ambiorix)
- prpl Security Requirements established for implementation:
  - Secure Boot Requirements & Whitepaper
  - Secure Manufacturing Data Standard
- prplOS 3.0 middleware (Kernel v5.15, OpenWrt 22.03)
2024 prpl Roadmap Candidates

- **Carrier-Grade HW Support**
  - More SoC vendors (expecting 2+ more in 2024)
  - New carrier-grade platforms into prpl CI/CD
  - Wi-Fi 7 (and with it, EasyMesh R6) for prplMesh
  - Wi-Fi 6E AFC for 6GHz at Standard Power for prplMesh
  - FWA Modems via new Low-Level API and new Data Model
  - Certification of BSP deliverables and Low-Level API support

- **App Store / Value-Added Service Delivery Platform**
  - Certification of Apps properly exercising High-Level API
  - Cloud/USP-based Orchestration of Containerized Apps & µServices
    - Optimized resource-layering among containers
    - Enhance existing SDK for App Developers
  - Expand High-Level API for more/new applications (while maintaining unprivileged containers)

- **Matter IoT**
  - CSA Open-Source Matter Controller in a container
  - Exercise native Matter data model from TR-181/USP/iMTP context
  - Extend Low-Level API to 802.15.4/Thread/BLE hardware
  - Aligned with BBF’s Smart Home Project Stream
  - Aligned with WBA Operator-Managed Smart Home Project
  - Aligned with CSA-standards

- **Additional SW features to streamline field Deployments**
Thank you

Open Source Foundation

Premium sponsors