

[Welcome](#)[News & Events](#)[Member Spotlight](#)[Committee Reports](#)[Developer Tools](#)[Tech Corner](#)[Resources & Contacts](#)

UPnP Newsletter First Quarter, 2002

QUARTERLY PUBLICATION

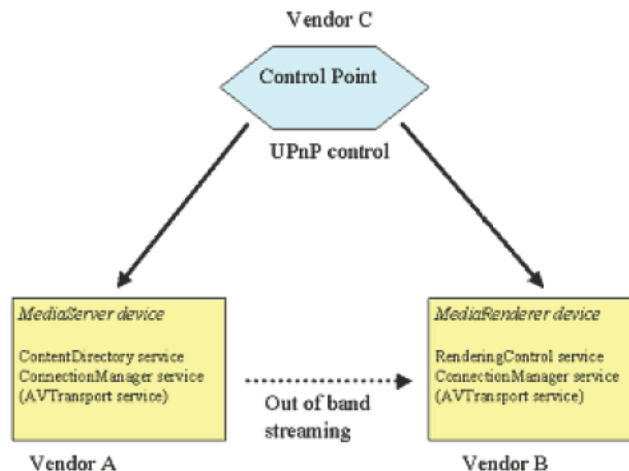
connections

Audio/Video Working Committee

*Jean Moonen, Philips Electronics N.V.
Audio/Video Working Committee Chair*

The Audio/Video (AV) Working Committee held its first Plug Fest. Despite travel restrictions, five AV companies participated with 18 devices in total. There were six MediaServer devices, six MediaRenderer (player) devices and six control points. Most devices were audio-based, using HTTP streaming of MP3 audio.

A typical test configuration consisted of three devices as pictured.



Each test involved:

- Discovery of devices and services by the control point;
- Browsing of content (mostly audio) using the ContentDirectory service;
- Compatibility checking (streaming protocol, content format) using ConnectionManager services on both MediaServer and MediaRenderer devices; and
- Streaming of content from the MediaServer device to the MediaRenderer device with playback using the AVTransport service

Committee Reports

[Audio/Video Working Committee](#)[Home Automation and Security Working Committee](#)[Imaging Working Committee](#)[Internet Gateway Working Committee](#)[Security Working Committee](#)[Marketing Committee](#)

browsing and searching, is planned for February 2002.

Other committee work included freezing the features to be supported by version 1.0 of the MediaServer and MediaRenderer device types and completing the associated documentation. In addition to the two device templates and four service templates, a framework document will explain the global design of the device types, as well as the interactions between MediaServer, MediaRenderer and the control point.

The next steps are to specify semantic test cases and prepare for the next Plug Fest. The committee's four services and two devices are expected to move to Template Design Complete status in the first quarter of 2002.

A three-vendor UPnP AV network was demonstrated at the Fifth UPnP Forum Summit. The network included Sony Corp.'s MicroServer device implementing the MediaServer specification; a Philips' Internet Audio System device implementing the MediaRenderer specification; and a control point application from Intel Corp. The demonstration involved the discovery and browsing of audio content, compatibility checking between audio sources and sinks, and streaming of audio content between UPnP devices. It showed the viability of UPnP implementations on actual consumer electronics.

[▲ TOP](#)

Home Automation and Security Working Committee

Hans J. Langels, Siemens AG

Home Automation and Security Working Committee Chair

The Home Automation and Security Working Committee has reached an important milestone by bringing the PowerSystem and SecurityAccessControl service and device descriptions to Template Design Complete status. Congratulations to Dominique Lallement (MGE UPS Systems), Roger Banner (Powerware Corp.), Paul Bohan (American Power Conversion Corp.), Nahum Tchernihovsky (Visonic Ltd.), and Volker Aumann (Kaba Benzing GmbH)!

This latest effort completes the design work covering a wide scope of products and systems in the home automation and security category: Lighting, HVAC, Digital Security Camera, Blinds/Shutters/MotorControl, PowerSystem, and SecurityAccessControl.

Several Forum members have presented implementations of these templates. These implementations are important to the committee's next step—testing three sample implementations of each template.

UPnP Forum members are encouraged to test their implementations against the UPnP Test Tool. Only your contribution can move device and service descriptions to a UPnP standard Device Control Protocol (DCP). Please contact **Hans-Joachim.Langels@Siemens.com** regarding sample test implementations for this committee.

Imaging Working Committee

Shivaun Albright, Hewlett-Packard Co.

Imaging Working Committee Chair

The Imaging Working Committee Plug Fest held in the fourth quarter of 2001 tested interoperability of print and scanner devices and is making great progress toward completion of the UPnP standards work in this area.

This was the first Plug Fest for the Scanner Subcommittee and the second Plug Fest for the Print Subcommittee. The Print Subcommittee tested discovery, Device Description Document (DDD) validation, Service Control Protocol Declaration (SCPD) validation and the functionality of the PrintBasic:1 Service Template. Hewlett-Packard Co., Canon Inc., Lexmark International Inc., Oak Technology Inc. and Microsoft Corp. participated.

All of the printer devices supported the UPnP basic functionality of discovery and presentation, as well as handling exposure to the rigorous validation of the DDD and the SCPD, as provided by the Microsoft Certification tool. All of the devices were able to print a job using the CreateJob Action and generate events as specified in the PrintBasic Service Template.

The Print Subcommittee has three sample implementations provided by Hewlett-Packard, Canon and Lexmark International. Once testing of the three sample implementations is complete, which is expected by February 2002, the Print Subcommittee will submit the PrintBasic Service Template to the Steering Committee for standards approval. The Steering Committee has a 45-day review period to receive comments, after which, if there are no objections, the service template moves to "Approved Standard" status.

Hewlett-Packard, Canon and Ricoh Corp. participated in the Scanner Plug Fest, which tested basic scanner interoperability. The goal of the Plug Fest was to have devices exhibit the functionality of the Scanner Service, the Feeder Service and the External Activity Service. The Scanner Subcommittee plans to conduct another Plug Fest in early 2002 to further test interoperability between the control points and scanner devices.

[▲ TOP](#)

Internet Gateway Working Committee

Prakash Iyer, Intel Corp.

Internet Gateway Working Committee Chair

The Steering Committee formally approved the Internet Gateway Device Control Protocol (DCP) v1.0 specification, making it the first UPnP standardized DCP specification. As Working Committee chair, I would like to personally congratulate all committee members, especially the sample implementers, for their participation and significant contributions over the past 18 months, which helped the committee achieve this extremely important milestone.

The Intel® AnyPoint™ Networking Gateway Model 1300 also became the first Internet gateway product to receive the

future, paving the way for UPnP-enabled gateway products in early 2002.

The Steering Committee has, in keeping with the procedures laid out by the Forum, disbanded the Internet Gateway Working Committee. However, committee members are continuing discussions on the scope and direction for a new committee charter to define more advanced UPnP services for future variants of gateway devices. A formal proposal will be presented to the Steering Committee in the coming months.

[▲ TOP](#)

Security Working Committee

Vic Lortz, Intel Corp.

Security Working Committee Chair

The Security Working Committee has made substantial progress since its formation in August 2001. Completed tasks include the following:

- Defined how to securely introduce and establish trust for new devices and control points on the network
- Adopted mechanisms for end-to-end confidentiality and authentication of SOAP messages, and defined a strategy for protecting event messages using XML encryption
- Developed a fine-grained access control framework based on public key cryptography and device-defined sets of permissions
- Drafted service specification and architectural framework documents

The access control framework also includes support for certificate-based groups of principals with limited delegation of permissions. Furthermore, the same public keys used in the Control and Eventing phases can also be used with self-signed certificates to authenticate the Presentation phase over Secure Sockets Layer (SSL) and Transport Layer Security (TLS) connections. This approach permits the same access control framework to apply to both the Control and Presentation phases of UPnP.

Intel is developing an implementation of the security services, and demonstrated an early prototype at the Fifth UPnP Forum Summit.

The committee has only a few outstanding issues to resolve before completing the version 1 security services. The group is working to develop solutions that would apply to future version of UPnP as well, although no decision has been made yet regarding their inclusion.

The Security Committee is working to complete security services v1.0 by summer 2002. Other working committees and manufacturers are encouraged to begin reviewing the preliminary documents related to security and make plans to incorporate security features into their devices. Feedback is welcome regarding implementation of UPnP security services in real devices. Control point implementers should likewise begin planning for security enhancements so their products will be able to discover and control security-aware devices.

to scheduled weekly teleconferences. All Forum members are welcome to join the committee's mail list. To do so, visit forum.upnp.org/archives/SECURITY.html and follow the "Join or leave the list" link.

[▲ TOP](#)

Marketing Committee

*Mark Lee, Microsoft Corp.
Marketing Committee Chair*

The Marketing Committee closed off calendar year 2001 with the UPnP Forum Summit and development of the UPnP marketing plan for 2002.

The UPnP Forum hosted the Fifth Forum Summit in Redmond in November 2001. For the first time, the summit event included a session track focused on marketing and market development issues.

2001 saw good progress for UPnP Forum marketing. During the year, the Marketing Committee was involved directly in completion of the new UPnP certification mark, creation of the logo usage guidelines, promotion of the Internet gateway standard, announcement of the formation of the UIC, and refreshing the look and content of the UPnP Forum Web site.

Looking ahead to 2002, a priority for the Forum is to complete more standards. Additional standards will mean more vendors can introduce UPnP certified products. Those products will make a significant difference for users and the industry. The Marketing Committee will contribute to this goal by providing baseline information and awareness-building efforts and by fostering an environment in which UPnP technology makes a real difference in newly standardized product categories.

To achieve this goal in 2002, we need to more deeply engage Forum Member companies—particularly Steering Committee members—in marketing activities on behalf of the Forum. This effort is driving a more distributed organization within the Marketing Committee, which is designating owners for events, member relations and other core marketing disciplines, as well as for various product categories.

As standards are completed for additional product categories, the Marketing Committee can assist Forum member companies that want to create cooperative marketing and awareness-building programs. Member companies can work together under the auspices of the UPnP Forum to drive awareness, public relations outreach, and other efforts to make UPnP technology a key differentiator in each successive, standardized product category. Product category-specific effort can help drive category success of UPnP technology while contributing to overall UPnP technology adoption.