

Contents	Page
1 Overview and Scope.....	3
1.1 Introduction.....	3
1.2 Goals.....	3
1.3 Non-Goals.....	3
1.4 Notation.....	3
1.5 References.....	3
2 Architectural Overview.....	4
3 Playback Architecture.....	6
3.1 Media Server.....	7
3.1.1 Content Directory Service.....	8
3.1.2 ConnectionManager Service.....	8
3.1.3 AVTransport Service.....	8
3.2 MediaRenderer.....	8
3.2.1 RenderingControlService.....	9
3.2.2 ConnectionManagerService.....	9
3.2.3 AVTransport Service.....	9
3.3 Control Point.....	9
3.3.1 2-Box model: Control Point with Decoder.....	12
3.3.2 2-Box model: Control Point with Content.....	13
3.4 Tracking streams in the network.....	13
4 Example Playback Scenarios.....	14
4.1 3-Box model: Isochronous-Push (IEC61883/IEEE1394).....	14
4.2 3-Box model: Asynchronous-Pull (e.g. HTTP GET).....	15
4.3 2-Box model: Control Point with Decoder using Isochronous-Push (e.g. IEEE-1394).....	17
4.4 2-Box model: Control Point with Decoder using Asynchronous-Pull (e.g. HTTP GET).....	18
4.4.1 Minimal Implementation.....	18
4.5 2-Box model: Control Point with Content using Isochronous-Push (e.g. IEEE-1394).....	20
4.6 2-Box Model: Control Point with Content using Asynchronous-Pull (e.g. HTTP GET).....	21
4.7 No ConnectionManager::PrepareForConnection() Action.....	21
5 Recording Architecture.....	22
Figure 1 — Typical UPnP Device Interaction Model.....	4
Figure 2 — UPnP AV Device Interaction Model.....	5
Figure 3 — General Device Architecture aka the 3-Box model.....	6
Figure 4 — General Interaction Diagram of the 3-Box model.....	11
Figure 5 — Control Point with Decoder.....	12
Figure 6 — Control Point With Content.....	13
Figure 7 — 3-Box Model: Isochronous-Push transfer protocols.....	15
Figure 8 — 3-Box model:Asynchronous-Pull transfer protocol.....	16
Figure 9 — 2-Box model: Control Point with Decoder using Isochronous-Push.....	17

Figure 10 — 2-Box model: Control Point with Decoder using Asynchronous-Pull..... 18
Figure 11 — 2-Box model: Minimal Implementation 19
Figure 12 — 2-Box model: Control Point With Content using Isochronous-Push..... 20
Figure 13 — 2-Box model: Control Point with Content using Asynchronous-Pull..... 21
Figure 14 — 3-Box model: no AVTransport::PrepareForConnection() function 22

Table 1-1 — Default Short Names for the AV Specifications 3