Appendix: Definitions

The following slides provide the definitions of all the geographic, solutions, product and services, and vertical market segments mentioned throughout this report and available within the IOTA data.

Product Segment Definitions

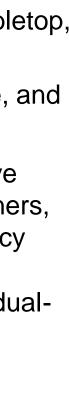| Segment	Product/Services	Detailed Descriptions
Audio Equipment	Audioconferencing Systems (Hardware/Software)	Audioconferencing systems includes speaker phones, conferencing systems, echo cancellers, system interface units and expansion cards, room and group systems, portable systems, and integrated routing switches
	Headphones, Headsets & Earsets	Headphones, headsets, and earsets used in entertainment, production, monitoring, enterprise telephony, and other applications. Includes call center headsets and in-ear monitors.
	Microphones (Wired and Wireless)	Wired and wireless microphones used in production, entertainment, and professional applications. Includes handheld, tabletop, and clippable or worn form factors.
	Speakers	Speakers utilized in professional, live entertainment, institutional, and production applications. Includes installed, portable, and amplified or PA. Inclusive of more recent speaker iterations with integrated technology (i.e., DSP).
	Other Audio Equipment	Others audio equipment includes cinema audio processor, dedicated digital signal processors (DSPs), amplifiers, assistive listening/sound-field systems, audio mixers/consoles, audio production equipment hardware/software, audio receivers/tuners, intercoms/paging systems, language interpretation systems, telephony & VoIP systems and sound masking/speech privacy systems.
Capture and Production Equipment	Cameras (Conferencing/Surveillance)	Cameras for conference room and surveillance markets includes indoor and outdoor cameras such as PTZ, wide angle, dual-tracking, electronically tracking, dome, night vision, and omni-directional zoom, etc. This category also includes USB conference cameras. Residential market and products are not included here.
	Cameras (Video Production/Recording)	Digital video cameras for broadcast, live events, cinema and television content production and recording including film cameras, digital cinematography, high-end camcorders, ENG news cameras, specialist miniature, and point-of-view cameras (including cameras with built-in robotics), super slo-mo systems, and system cameras including CCU and camera control. Prosumer camcorders are also included but not consumer grade.
	Videoconferencing Systems (Hardware/Software)	Videoconferencing systems includes both hardware and integrated software for telepresence end points, desktop system end points, multipurpose room system end points, videophones, all infrastructure including multipoint control units, bridging devices required for video conferences between three or more end points, gatekeepers, gateways, firewalls, and scheduling and management software. This category does not include software-based endpoint solutions.
	Other Capture & Production Equipment	Other capture and production equipment includes document cameras, scalers, switchers and video processors, as well as broadcast grade digital convertors and prosumer-grade equipment sold for professional usage. Residential products are not included here.

Product Segment Definitions (continued)

Segment	Product/Services	Detailed Descriptions
Control/ Collaboration	Collaboration Systems (Hardware/ Software)	Systems for in-person or online collaboration, including wireless presentation systems. Both hardware and software are included due to common bundling of both.
	Control Systems	Control systems include keypads, control panels, touch panel controls, remote controls used in both AV applications and applied integrated systems for energy control, building management, and lighting control. Also includes integrated physical access control include keypads, serial controllers, IP-enabled controllers, and edge-based controllers. Controllers for both commercial and residential segments are included. Fire and intruder control panels are also included.
Environmental	Lighting Fixtures (including installed and portable)	Lighting fixture includes connected ballasts and wireless adapters, connected switches, environmental and light level sensors, occupancy sensors, keypads and HMI screens, and RF luminaires. Lighting fixtures at consumer residential homes are not included but smart home integrated fixtures such as connected LEDs are.
	Other Environmental	Other environmental includes acoustic materials, kiosks, rigging and staging, and shades and drapes as well as networked and controlled motorized window dressings.
Infrastructure	Mounts, Stands & Lifts	Mounts, stands, and lifts includes mounts for flat-panel display and video projector, security and swivel mounts, brackets, display lifts, and projector lifts. Stationary and mobile vertical racks, cabinets, and kits are also included. Differentiated from furniture in that mounting systems are used to support equipment and provide functionality such as lifting, lowering, or simply locking equipment in place.
	Other Infrastructure	All cable types, cable management systems, connectors and adapters, and cable assemblies used for pro AV and AV/IT installations. Fiber optic transmission equipment for audio, video, and data applications is included. Consoles and furniture, power distribution, supplies & cooling systems, and test, measurement and monitoring equipment.
	Plates, Panels & Wall Boxes	Plates, panels, and wall boxes for various input and output connectors, converters for pro AV use and when integrated into overlapping applications such as smart home.
	Signal Routing & Switching (Hardware/Software)	Signal routing and switching includes signal switchers, transmitters and matrix switchers (routers) that transmit and replicate control information and IP-based AV signals outside of specialist applications (such as broadcast).

Product Segment Definitions (continued)

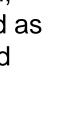| Segment	Product/Services	Detailed Descriptions
Video Displays	Flat-Panel Displays, TVs, and Monitors	Flat-panel displays, TVs and monitors includes all direct-view flat-panel displays such as LCD, OLED, and PDP that are sold through professional distributors, system integrators, and pro AV dealers and are used for digital signage and professional applications. Interactive flat-panel displays with touch overlays sold for pro AV applications are also included in this category. Flat-panel TVs used for home cinema and home theaters requiring custom installation and design are included in this category. Monitors include medical, broadcast, and professional graphics specialty displays. These monitors include clinical review, diagnostic, surgical displays, Grade 1 master monitor, picture monitor, reference monitor, picture viewer, and wave viewer. Generic desktop computer monitors are excluded.
	LED Video Displays	LED video displays use arrays of either SMD or lamp-based LEDs (light emitting diodes) to create tiles of direct-view displays that can then be configured to form a larger custom-sized display.
Video Projection	Projectors (DPL, LCOS, Laser, etc.)	Projectors (DPL, LCOS, laser) include both portable and installed digital video-capable projectors used for conference room, classrooms, large venues, rental staging, and cinema. Ultra-portable projector and personal pico-projectors are not included as these do not require installation. Front projectors used for home cinema and home theaters requiring custom installation and design are included in this category.
	Projection Screens	Projection screens include motorized wall and ceiling screens, folding and staging screens, fixed wall screens, tripod and portable screens for AV, HDTV, multi-aspect ratio, video, widescreen, and letterbox format for front and rear-projection displays. Projector screens for home cinema and home theaters are included.
	Projector Accessories (Bulbs, Lenses)	Projector accessories include bulbs, lenses, and 3D systems. Not included are editors, splicers, rewinders, and maintenance supplies. Projector accessories for commercial and CEDIA products are included.

Product Segment Definitions (continued)

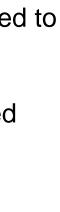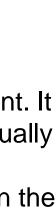| Segment	Product/Services	Detailed Descriptions
Content Management Hardware	AV Servers	AV servers are purpose-built, pro AV hardware-specified equipment that is primarily used in the media and entertainment industry. AV integrator and resellers are selling more enterprise-used specialist servers in order to run the software that used to run on purpose-built pro AV devices.
	I/O Cards	I/O cards include all other input-output cards that are sold separately and not integrated into or part of equipment mentioned previously, including for rack-based equipment and in desktop or laptop computers (e.g. Firewire, PCMCIA, USB).
	Media Players	Media players include purpose-built hardware players for applications such as digital signage to play video content on screens. Media players run on a variety of operating systems including Windows, Linux, Android, and iOS and are capable of performing many functions and include features such as upscaling, streaming, interactive, live feeds, beacons, and geo-fencing.
	Media Servers	A media server is a networked physical device that provides share computed functionality, typically containing a central processing unit (CPU), random access memory (RAM), storage, physical network interface, power supply, and management. It allows video and audio data to be ingested, analyzed, accessed, encoded, processed, and outputted automatically or manually from a central location, or to run special applications that allow the user to access the media from a remote location via the internet. The media server contains physical arrangements that allow for CPU, RAM, and physical network interfaces within the server enclosure blade, open compute, rack, and tower. It includes both pro-AV software, specified equipment, and generic IT enterprise-built equipment that are primarily used for AV.
	Media Storage	Media storage is a networked physical device that stores, shares, and archives images, audio, and video data in any media content-related industry. It typically contains a basic central processing unit (CPU), a primary storage device, such as random access memory (RAM), and a secondary storage device, like a solid-state drive (SSD) or hybrid hard drive (HDD). Secondary storage can be removable, internal, or external. Media storage offers media data processing and storing functions automatically or manually from a central location or run special applications that allow the user to access the media from a remote location via the internet. It includes both purpose-built, pro-AV-specific configured equipment, and generic IT enterprise-built equipment that is primarily used for AV.

Product Segment Definitions (continued)

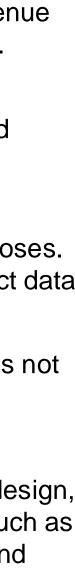| Segment	Product/Services	Detailed Descriptions
Services	AV Design	AV design services include all revenue generated by systems integrators, dealers, design-build contractors, distributors, and independent design consultants for system design or planning.
	AV Installation/Integration	AV installation and integration services include all revenue generated in system build and installation, as well as specific revenue for system integration into existing workflows or technical plants such as integrating AV products into an existing IT networks.
	Managed Services & Maintenance	Revenues from managed services in pro AV such as cloud services, and for maintenance contracts, extended warranties and life-cycle support, and embedded staff on the customer's premises, as well as training revenues.
	Cloud Services	Revenues from cloud services used for the management and distribution of AV content for collaboration or presentation purposes. This includes licensing of collaboration services like Zoom or Teams that flows through the pro AV channel, but excludes strict data storage services used for system back-ups.
	Rental & Staging	Rental and staging includes all service revenue associated with AV products and temporary provision for staged events. Does not include leasing or other long-term direct finance purchases as well as support service revenue.
Standalone Software	Standalone Software	Standalone software includes all software that is not integrated or packaged with other products for AV asset management, design, show control, collaboration, content creation, scheduling, content management, and room management for many solutions such as digital signage, collaboration, cinema, live events, and command and control. Video management software for surveillance and access control software are also included in this category.

6

Solutions Bundle Definitions

Solutions

Definitions

Command and Control

Command and control solutions include technology and services used in control rooms across various industries to monitor, manage, or dispatch required resources. Examples include operations center or room, dispatch center, emergency communications center, emergency operations center, network operations center, and/or communications center, among others.

Conferencing and Collaboration

Conferencing and Collaboration solution includes a combination hardware, software technologies and services that enable communication between two or more sites. These solutions may be sold in the form of bundles or separate components and often include a cloud-based aspect.

Content Production and Streaming

Solutions catering to the 'audio/video capture' and 'audio/video production' of content destined to be disseminated over video networks, theatre exhibition, or streaming services using a transactional, subscriber or ad funded business model. This includes hardware such as Cameras, encoders, video processors, scalers and switchers, managed services & maintenance and software.

Digital Signage

Digital signage solutions use display, media players, servers, software, and managed services to display content in out-of-home (OOH),and public environments, and by multiple individuals simultaneously to convey information, advertising, or other forms of messaging.

Learning

Classroom solutions include audio visual hardware and software products and services that assist teaching in K-12, higher secondary education facilities, and corporate learning.

Live Events

Live events includes hardware, software, and services to provide turnkey live event audio visual solutions for events and shows or temporary facilities.
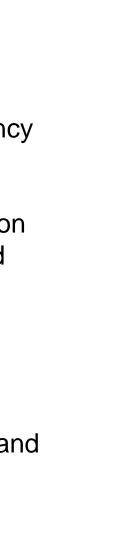
Performance/Entertainment

Theatre solutions include permanent installations of audio and video equipment in both residential and commercial settings. Examples include cinema, home theatre, and theatre installations in museums, houses of worship, entertainment venues, and so on. Rental and staging equipment for temporary facilities are excluded from this category and covered under Live Events.

Security/Surveillance/Life Safety

Includes the following equipment types for professional video surveillance: analog security cameras, DVRs, NVRs, network security cameras, video encoders, video management software (VMS), CS-mount lenses, camera housings, CCTV, controllers and keyboards, and motorized camera positioning mounts.

Other Solutions

Specialty medical displays such as clinical review, diagnostic, surgical displays, and professional graphics displays. It also includes other solutions not captured above.

Vertical Market Definitions

Industry	Definitions
Corporate and Finance	The Corporate industry refers to all business and company pro AV use for daily operations either in offices or as part of the business operations of those corporations. Includes corporate conferencing facilities, but not specialist conference halls. It includes finance service centers and banks.
Education	Education includes all levels of education and academic research across the world both in public and private sectors.
Energy and Utilities	The energy and utilities vertical comprises oil and gas, utilities, mining, and renewables segments with most of their subsectors.
Government and Military	Government and military vertical includes the majority of wider public sector activities and buildings apart from those covered in other segments such as education, healthcare, and transportation. All armed forces-related activities are also included. State-owned public spaces are also included where they are not venues or event locations.
Healthcare	The healthcare vertical includes all locations where private and public health entities use any pro AV equipment.
Hospitality	The hospitality vertical includes all types of accommodation and entertainment facilities including hotels, bars, and restaurants.
Media and Entertainment	The media and entertainment vertical includes all production, editing, and broadcast pro AV equipment and services across film, games, music, radio, and TV. Digital signage installations in the media and entertainment vertical are not included here.
Residential	The residential vertical includes all pro AV installations in homes and privately-owned locations, including high-end smart home and installed home theater.
Retail	The retail vertical includes all possible retail locations from supermarkets and malls to large multinational retailers and small-shop owners.
Transportation	The transportation vertical refers to all infrastructure, sites, and buildings related to public transportation systems by air, land, or sea in both public and private sector ownership. This includes airports, train stations, metro systems, and ports.
Venues and Events	This includes all locations able to host larger or smaller events for purposes such as athletic events, sports stadiums, museums, amusement parks, houses of worship, concerts, cinemas, or other entertainment venues and specialist conference halls.

Geographic Segments

Region	Sub-Region and Countries
Asia-Pacific	**Australasia:** Australia and Rest of Australasia (New Zealand, Papua New Guinea, and the islands of Micronesia and the South Pacific)
	China: People's Republic of China, Hong Kong and Taiwan
	East Asia: Japan, South Korea, and the rest of Southeast Asia (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam)
	Indian Subcontinent: India and the rest of the Indian subcontinent (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka)
Europe	**Central Europe:** Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, Kosovo, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, and Turkey
	Eastern Europe: Russia and the rest of Eastern Europe (Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Mongolia, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan)
	Scandinavia: Denmark, Finland, Greenland, Iceland, Norway, Sweden
	DACH: Germany and the rest of DACH (Austria and Switzerland)
	Western Europe: UK, France, Italy, Spain, Portugal, and the rest of Western Europe (Belgium, Ireland, Liechtenstein, Luxembourg, Malta, and the Netherlands)
Latin America	**Central America and the Caribbean:** Mexico and the rest of Central America and the Caribbean (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and the countries of the Caribbean)
	South America: Brazil and the rest of South America (Argentina, Bolivia, Chile, Colombia, Ecuador, Falkland Islands, French Guiana, Guyana, Paraguay, Peru, Surinam, Uruguay, and Venezuela)
Middle East and Africa	**Middle East and North Africa:** Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen
	Sub-Saharan Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, São Tomé and Príncipe, Tanzania, Togo, Uganda, Zambia, and Zimbabwe
North America	Canada and the United States