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VIDAA TV Operating System: Enhanced Performance for an Optimized Smart TV Experience

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Connected TV landscape

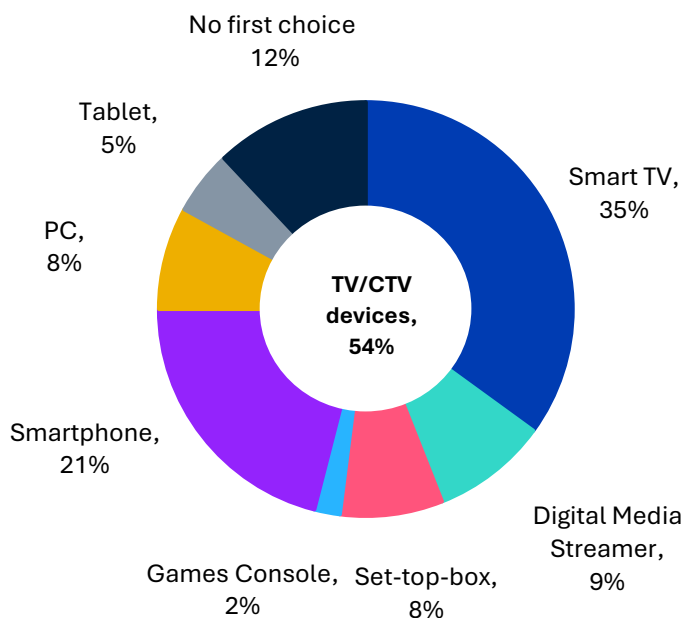
Connected TVs (CTV), or TVs connected to the internet either natively or through a device, have become the norm in today's world of streaming services. Consumers have adopted them as a convenient way to access their various streaming services, the internet, and cable TV.

Omdia research shows that smart TVs are the leading first-choice for video viewing (see **Figure 1**).¹ Smart TVs provide internet access without the need for extra devices.

Consumers are looking for smart TV operating systems (OSes) to provide access to their favorite services with speed and consistency.

Figure 1. Smart TVs are the leading first-choice device for video watching

On an average day, which, if any, of the following devices and services is your first choice when looking for something to watch?



Source: Omdia

¹ Source: Omdia Research Report, [TV and Video Advertising Market Landscape](#), April 2026.

VIDAA TV OS

VIDAA TV OS is a TV platform designed to integrate top-tier streaming content and services to meet users' diverse needs in a smart TV. Built on the foundation of Linux, an open source and battle-tested operating system, VIDAA OS is built to easily integrate with a variety of OEM and software partners.

VIDAA OS focuses on delivering excellent experiences to end users by quietly working in the background to efficiently deliver services. Content, brands, and partners then have the opportunity to take center stage to deliver services to end users. VIDAA-powered TVs come factory-loaded with hundreds of free ad-supported streaming channels, ensuring that customers see immediate value from their purchase and increasing customer satisfaction.

VIDAA OS integrates hardware and software, supporting a dynamic range of capabilities, including voice control, hospitality mode, and advanced visual and audio formats. With strong localization capabilities, VIDAA also provides these features globally to a wide range of OEMs.

First Look

Omdia validated the VIDAA OS against several others from major TV brands. We evaluated the OSes by measuring their performance in several important areas:

- **Standby power to home:** This test included going into standby, waiting five minutes, and turning the power back on, and ended when the home screen appeared.
- **Change streaming channel:** This included an average of 10 tests where we changed channels on a live TV service. When possible, we used native live TV apps; if one wasn't available, we used Pluto TV. The tests measured from the point when the button was pressed on the remote to the first running frame on the next channel.
- **Cold start to open YouTube:** Cold start is accomplished by unplugging the TV for 20 seconds. After that, we turned the TVs back on, waited on the home screen for five minutes, and then opened the YouTube application.
- **Cold start to open Amazon Prime:** The same cold start procedure was performed with the Amazon Prime application.
- **Start an HD program on Netflix:** After a soft power cycle (i.e., not unplugging the TV), we turned the power back on and opened the Netflix application. For this test, we chose a Netflix documentary and started the episode. We measured from the time we selected the episode to when the first frame of the episode was displayed.
- **Wi-Fi search:** We measured the time it took from pressing the button on the remote to select Wi-Fi networks to having a full list of available Wi-Fi networks loaded.
- **Screencast from phone to YouTube app on TV:** This test involved opening a YouTube video on an iPhone and transferring it to the YouTube application running on the TV. The time was measured from when the TV was selected from the list of available TVs to when the first frame of the video was visible on the TV.

- **Voice search:** This tested the remote controls’ voice search capability for those TVs that had voice search available. Time was measured from when we finished speaking to when the results were fully loaded.
- **Switch HDMI input:** In this test, we switched from the home screen to a device plugged into the TV’s HDMI input, in this case a running PlayStation 5 gaming console.

Test results

Omdia tested VIDAA OS in comparison to six other popular TV OSes. We ran each TV through each of the above scenarios and measured the time it took each OS to complete the task required.

The TVs chosen were based on what is commonly available in the US market. VIDAA OS was used on a Hisense TV with a 50” screen, as that is available in the American market. All other TVs used in this test have 43” inch screens, with similar hardware components and processing capabilities despite the screen size difference. All TVs were in the range of US\$150–250. **Table 1** shows the specific TVs and models used for the test.

Table 1. TVs chosen for the test

TV brand	Model number	Operating system
Hisense	50QD6QV	VIDAA OS
LG	43NU700BPUC	webOS
Samsung	UN43U8000HFXZA	Tizen
Onn	43S4V1	Vizio
Roku	43R4E5	Roku
TCL	43Q51K	GoogleTV
Amazon Ember	4-Series	FireTV

Source: Omdia

The testing was performed by setting up a camera pointing at the screen of the TV being tested. The camera recorded the test as it was performed at 60fps. Once the test was completed, we opened the recording in video editing software to isolate the exact frame where the remote button was pushed and when the TV screen updated with the expected result. The time between these two points was measured in seconds using the video software.

Reading through the results at such fine detail can be challenging, so to make things easier to understand, Omdia converted the raw results into indexed results to better illustrate the relative performance among the various TV models. In each category, we gave the fastest TV a score of 100. From there, all other times were converted to percentages of the fastest time. For example, if a TV took twice as long to complete the task as the fastest TV, it received a score of 50. Once these results were calculated, we then calculated the average of all indexed scores to provide a complete picture of how each TV compared to the group.

Table 2 shows the indexed results from the testing. If there is an open space in the table, the TV did not have that feature, or the feature was non-functional at the time of the test.

Table 2. Indexed test results as a percentage of the top performer in every category

Scenario	Hisense (VIDAA OS)	LG (webOS)	Samsung (Tizen)	Onn (Vizio)	Roku	TCL (GoogleTV)	Amazon (FireTV)
Standby power to home	94	30	100	29	39	28	49
Change streaming channel	100	25	21	31	62	29	14
Cold start YouTube	72	100	85	60	43	58	62
Cold start Prime	96	22	100	28	32	46	98
Play movie on Netflix	32	52	33	48	53	100	82
WiFi Search	17	51	9	100	14	40	51
YouTube screencast	100	51	50		10	64	49
Voice search	100			54	81	70	54
Switch HDMI input	88	14	100	43	20	29	50
Average (higher is better)	78	43	62	49	39	52	57

Source: Omdia

The results paint a clear picture: Across the entire testbed, VIDAA OS was the fastest OS in performing these tasks. Several observations stood out to Omdia analysts:

- **Dominance in winning categories.** VIDAA OS was the fastest in three categories: changing streaming channels, screen casting from a phone to a TV with YouTube, and voice search. In each category that it won, VIDAA OS won by a large margin, with significant gaps between it and the other TV OSes.
- **Consistent performance.** Even in categories where VIDAA OS was not the fastest, it was only the slowest in one: playing a movie on Netflix. Otherwise, it was often the second or third best in the category and consistently close to the leader.
- **A compelling option for OEMs.** VIDAA's strong performance across the board makes VIDAA OS a compelling option for TV manufacturers looking to provide the performance and services consumers desire.

Conclusion

CTV has become the default for many consumers due to the convenience and growth of streaming services, where network and cable TV once dominated. In the CTV category, smart TVs have become the dominant category for video viewing, according to Omdia research. As consumers move to internet-based services to consume content, smart TV manufacturers are under pressure to use or build OSes that take full advantage of the hardware and deliver a seamless and fast experience.

Omdia validated how VIDAA OS compared with other TV OSes in performing several common tasks, including powering on from standby, changing streaming channels, starting up YouTube and Amazon Prime, playing a movie on Netflix, searching for Wi-Fi networks, screencasting a YouTube video from a phone, voice searching, and switching to an HDMI input. We used a Hisense TV running VIDAA OS and six other popular TVs in the US market. By measuring the performance of all TVs in each scenario, we were able to determine VIDAA's performance relative to other TV operating systems.

VIDAA OS was the clear winner across the entire test bed. It was the fastest in several categories and had strong showings across the board. VIDAA OS showed a well-rounded performance indicative of a strong OS that will meet the needs of the current streaming-heavy consumer. Omdia suggests that TV manufacturers consider VIDAA OS as a strong option when deciding which OS to use for their consumer TVs.

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