

Indian Radio Software Architecture Standard

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Indian Radio Software Architecture Standard Latest News

Recently, the Defence Research and Development Organisation (DRDO), in collaboration with the Integrated Defence Staff and the Tri-Services released Indian Radio Software Architecture (IRSA) standard 1.0.

About Indian Radio Software Architecture Standard

- It provides a **standardised software architecture** defining how different **radio systems** communicate securely and efficiently.
- It is **India's first national specification** defining a standardized software architecture for **Software Defined Radios**.
- **Vision:** To position IRSA as a global benchmark — enabling India to **shape the future of SDR technology** and export IRSA-compliant solutions to friendly nations.
- It is a comprehensive software specification for **Software Defined Radios (SDR)**, defining standardized interfaces, **APIs, execution environments**, and waveform portability mechanisms, SDR Interoperability, **Certification and Conformance**.

- India's IRSA now **joins the elite group** of global SDR frameworks — alongside the US **Software Communications Architecture** (SCA), **Europe's ESSOR**, and NATO's STANAG SDR standards.
- It is prepared as per Standardization of Indigenous Software Defined Radio initiative of **Directorate of Standardization** (DoS) under **Department of Defence Production** (DDP) in Ministry of Defence (MOD) India.

What is Software Defined Radio?

- SDR is a radio communication system that **employs reconfigurable software-based components** for the processing and conversion of digital signals.
- Unlike traditional **radio communication** systems, these radio devices are highly flexible and versatile.
- This is an emerging technology used to connect an ever-increasing wireless world.

Source: PIB

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