The fastest path to deliver secure, interoperable, and intelligent IoT offerings

Getting IoT right is hard. The problem is inherently complex – an IoT solution spans hardware, software, cloud, security, applications, big data, and analytics. This is in addition to the complexities of good product design. Without enabling developers to build IoT products and services that are secure, can interact with other devices and services, and are able participate in intelligent experiences, IoT can’t live up to its ideal – enabling end users and businesses to extract value from connected things without having to think about the underlying technology.

Samsung ARTIK

Samsung ARTIK is the integrated IoT platform that provides the fastest path to deliver secure, interoperable, and intelligent IoT products and services.

Samsung ARTIK:
- Unifies hardware, software, cloud, security, and partner ecosystem in a single integrated offering.
- Hides the inherent complexity of IoT behind easy to use, open, and enterprise grade APIs, SDKs, and tools.
- Enables any device to interact with any 3rd party device, app, or service.

Using Samsung ARTIK modules, cloud APIs, and tools, enterprises can quickly bring new IoT solutions to market, tap into new revenue streams, and grow their business.

Key Differentiators
- Integrated platform – IoT modules and cloud
- Easy to use, API-first
- Built-in interoperability and privacy
- Enterprise grade
- End-to-end security

Typical Use Cases
- Home
- Buildings
- Health
- Retail
- Industrial

To learn more about Samsung ARTIK smart IoT platform, visit artik.io. Sign up for a free ARTIK Cloud account today at artik.cloud.
Key Capabilities

Production ready IoT modules
Rapidly deploy edge devices and gateways.

Edge Nodes
Deploy edge devices using powerful and production ready modules.

Gateways/Hubs
Deploy gateways or hubs using powerful and production ready modules.

Connectivity Protocols
Support most of the common wired and wireless protocols (Ethernet, Wi-Fi, Bluetooth Smart, ZigBee, Thread) with built-in radios.

Integrated middleware stack
Eliminate 9-24 months of product development with out of the box integrated and tested embedded operating system and middleware.

Certifications
Eliminate unnecessary design iterations with out of the box wireless certification (FCC/IC/KC) for various regions.

Prototype to Production
Protect your prototype investment by using the same modules for production deployment.

Device and Data Interoperability
Easily enable devices to communicate with other devices or cloud services.

Device Discovery
Easily and securely share device models with other developers.

Cloud Connectors
Connect to any cloud service and collect data from it.

Built-in Cloud Connectors
Connect to many popular devices, apps, and services using built-in cloud connectors. https://artik.cloud/works-with.

Heterogeneous Data Collection
Collect any data (continuous, discrete, real time, or historical) from any device or 3rd party cloud.

Data Normalization and Storage
Store and aggregate raw and normalized data from any device.

Intelligent Experiences
Act on events from many diverse devices in real time and trigger actions on many diverse devices, or generate emails and alerts.

Security & Privacy
Secure every device, app, and user interaction and protect data privacy.

End-to-end security
End-to-end security from ARTIK modules to ARTIK cloud and to 3rd party devices and apps.

Secure Device Registration
Securely connect devices to the cloud using TLS, secure element, and certificates issued by a trusted certificate authority.

API Security
Protect your devices and data from unexpected or unauthorized traffic spikes and other top 10 OWASP threats.

Authentication and Authorization
Secure every device, app, and user interaction with open Internet standards based authentication and authorization.

Data Privacy
Protect data privacy with built-in identity and permissions management.
Key Capabilities

**Device Management**
Monitor and manage fleet of deployed devices, both edge nodes and hubs/gateways.

- **Device Mirror**
  Virtually represent physical devices in the cloud.

- **Device Presence**
  Monitor the connectivity of online devices.

- **Server Properties**
  Quickly search and manage devices by defining and storing custom meta-data in the cloud.

- **Device Properties**
  Manage devices using pre-defined meta-data supported by the LWM2M protocol (e.g.: firmware version).

- **System Properties**
  Manage devices using pre-defined meta-data defined by ARTIK Cloud (e.g.: creation time stamp).

- **OTA Updates**
  Deliver over-the-air (OTA) updates to devices.

- **Device Tasks**
  Remotely execute functions on many devices (e.g.: reboot, factory reset, firmware update, etc.).

- **Device Management Dashboard**
  Read, write, and query properties stored in the device mirror, and remotely execute functions via the self-service experience.

- **Device Management APIs and SDKs**
  Programmatically manage device meta-data in the cloud and synchronize it with the physical device.

**Analytics and Visualization**
Visualize and analyze data in near real time.

- **Aggregations**
  Generate insights faster with near-real time access to normalized message aggregates (sum, min, max, mean, count and variance).

- **Data Visualization**
  Visualize data from disparate devices in context.

- **Fleet Analytics**
  Monitor the health of device fleet by analyzing adoption, usage, and errors across all devices.

- **Analyze all data**
  Use all data – from first and third party devices - to build mobile apps and machine learning solutions.

- **Near Real Time Data Access**
  Act on event data from ALL devices in near real time.

**Scalability and Latency**
Scale up or scale out without loss in latency.

- **Scalability**
  Advanced micro-services based platform designed to scale to billions of devices and messages without increase in latency.

- **Availability**
  Designed to be highly available with disaster recovery and backups of persistent data stores.

**Partner Ecosystem**
Complement the out of the box capabilities with a rich ecosystem of certified partners.

- **Service and Solution Partners**
  Employ certified partners with a wide range of functional and domain expertise to design, integrate and/or source your ARTIK implementation.

- **Technology Partners**
  Enhance your ARTIK powered solution with certified products such as IO devices, sensors, gesture and voice recognition, advanced analytics, etc.

**Developer Tools**
Increase developer productivity with easy to use, open APIs, SDKs, and tools.

- **Data Access APIs**
  Collect, and query data from disparate devices using easy-to-use, open APIs.

- **Multiple SDKs**
  Enable developers to easily build apps and services using a number of mobile and platform SDKs: Objective C/iOS, Java/Android, JavaScript, Swift, PHP, Python, Ruby, Scala, C#, and Tizen 3.0.

- **Developer Portal**
  Empower developers with self-service access to rich API documentation, API console, blogs, samples, forums, and more.

  - **API-first**
    Manage and extend platform entities using built-in REST APIs.

  - **Auto-update APIs**
    Automagically access device model changes through built-in REST APIs.