



GSC | 22
MONTREUX, SWITZERLAND





ATIS Priorities and Initiatives

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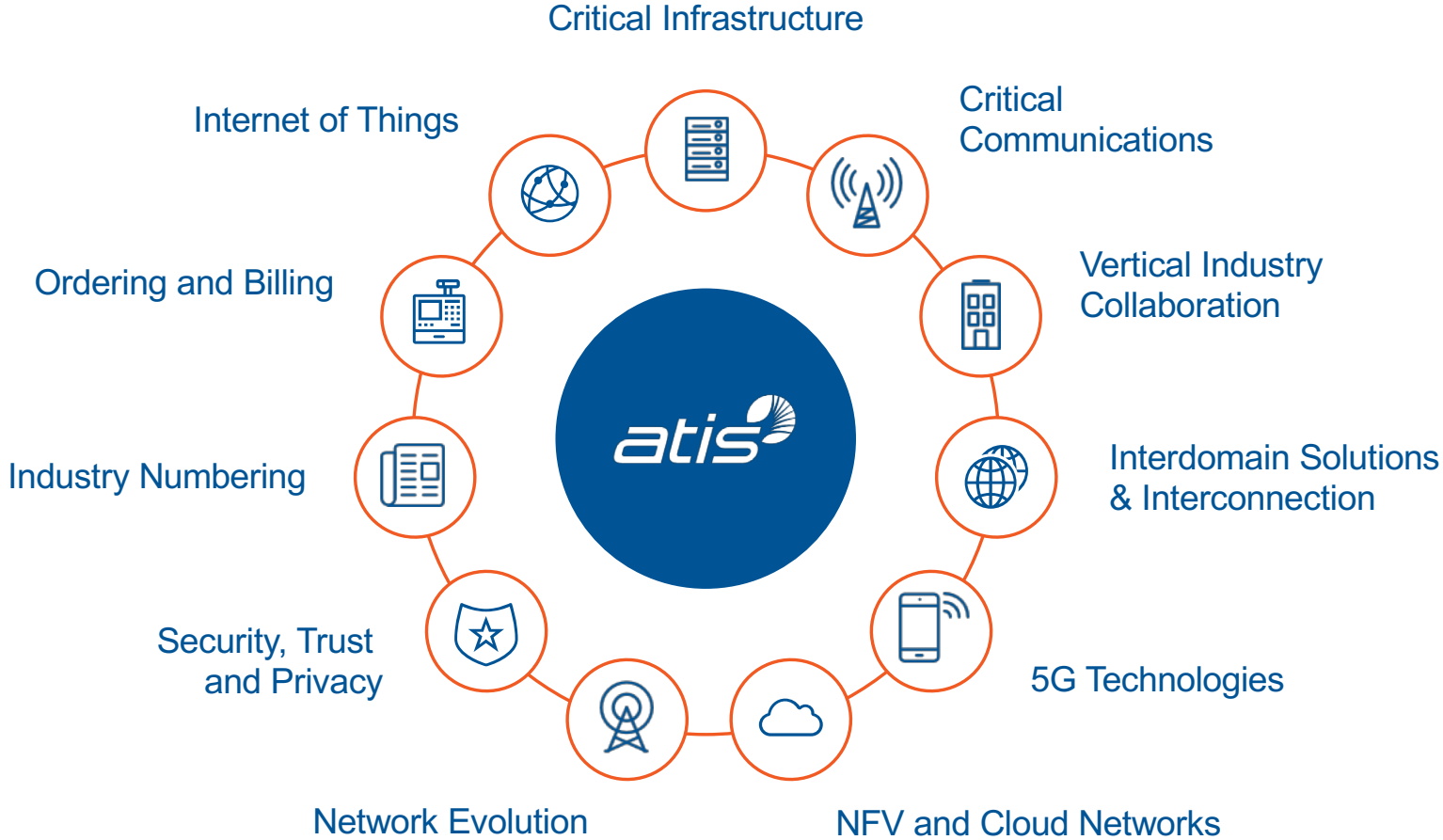
Advancing ICT Industry Transformation

ATIS strategic initiatives and solutions/standards work progresses new business opportunities, solves common industry challenges, and creates a platform for collaboration with other industries.

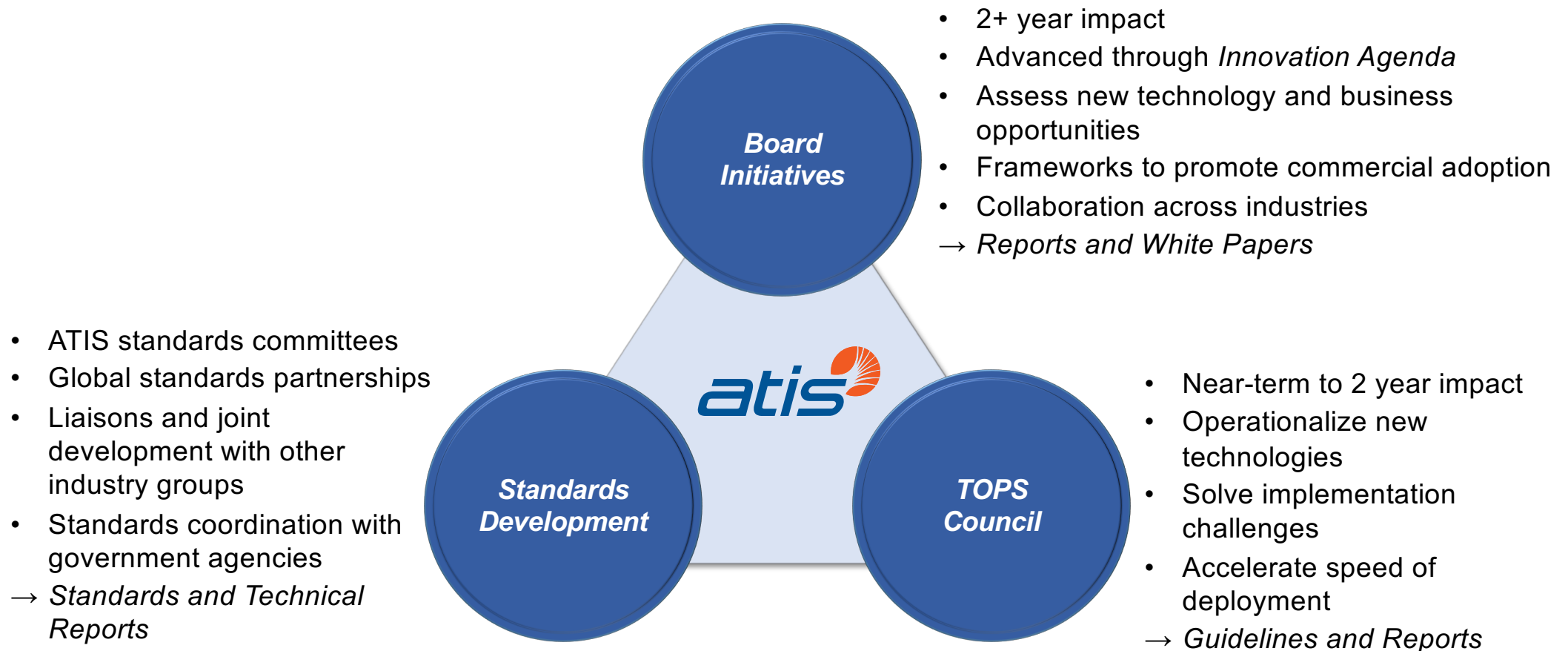


Identifying and defining *where and how* to align and collaborate; *sharing resources, effort and cost* to develop large-scale, interoperable solutions for a “common industry good” is both critical and beneficial to the industry. ATIS is the catalyst.

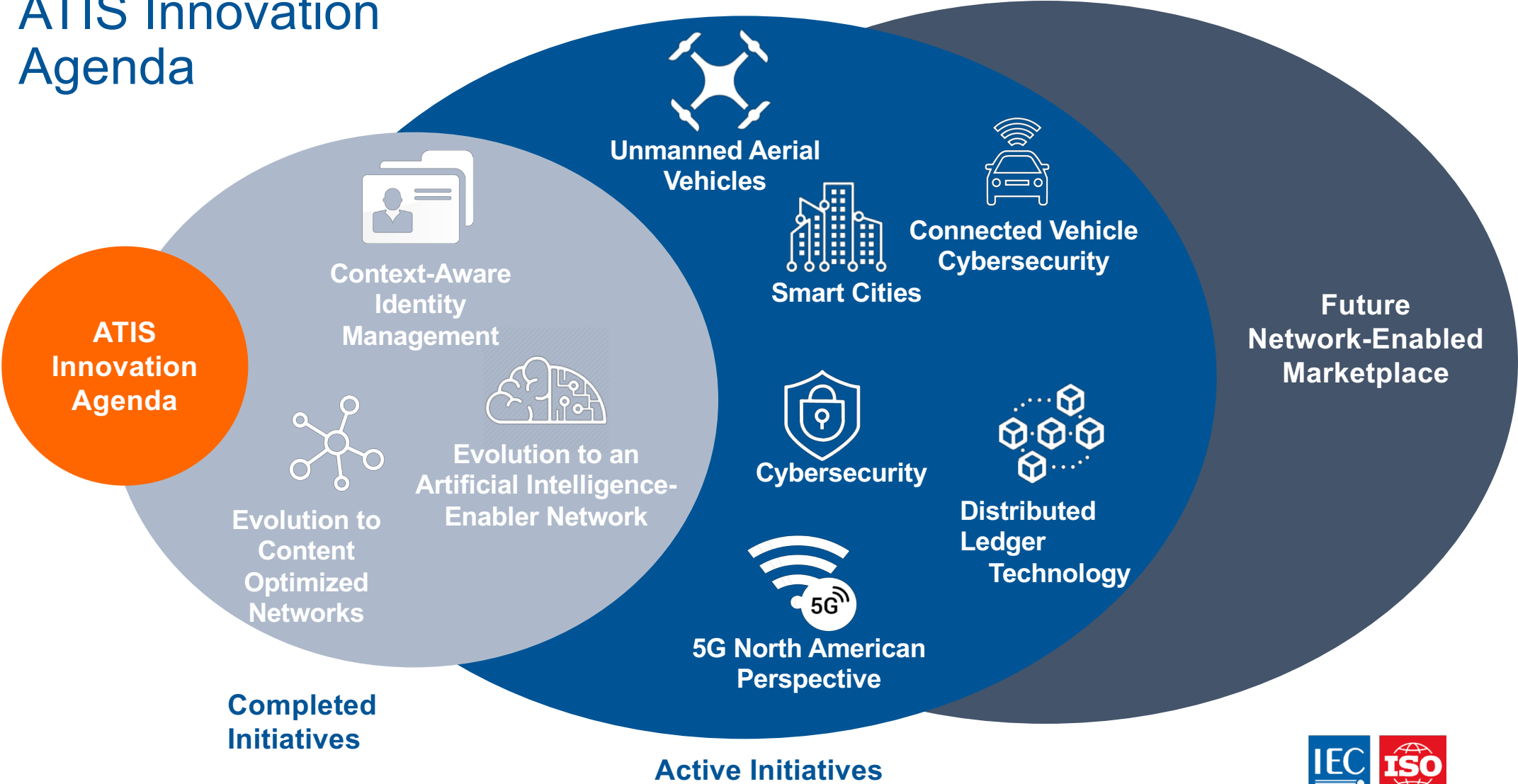
Technology Focus Areas



The ATIS Landscape



ATIS Innovation Agenda



5G Standards Development

3GPP North
American
Organizational
Partner



Alignment of North
American 5G requirements
for 3GPP Release 17 and
Beyond

5G as an enabler for ATIS
Innovation Agenda (e.g.,
Connected Car, Smart Cities,
UAVs)

5G dense deployment
solutions using *Neutral
Host*

ATIS provides 5G leadership through:

Participation in 3GPP
global standards
development

Convergence point for
key North American
requirements and
features

Industry/government
partnerships that
promote global
leadership

Early insight into 5G
applications and use
cases anticipated to
impact the market

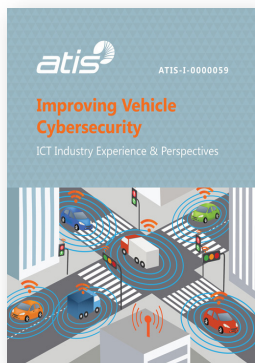
Cybersecurity

ATIS recognizes the future of securing networks, devices and applications.

ATIS *Cybersecurity* initiative focuses on the following set of principles:

- Threat models should be assessed on an end-to-end basis.
- Security by design is fundamental.
- ATIS Architectural Risk Analysis (ARA) approaches security as a process.

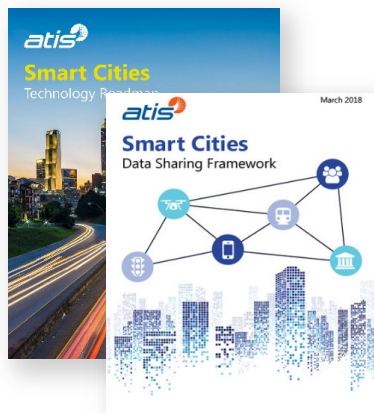
Collaborating with Vertical Industries



Connected Car Cybersecurity

It is predicted that 98% of cars will be connected by 2020 (Source: Statista)

- Report built on dialog with Auto OEM's and cybersecurity leadership from ICT industry.
- Proposed collaborative Cybersecurity Program across industries to advance Connected Vehicle Threat Intelligence needs.
- Automotive Information Sharing and Analysis Center (Auto-ISAC, managed by Booz Allen) strategic partner



Smart Cities

Smart Cities global market expected to grow from \$425B to \$1.2T by 2022 (Source: Markets and Markets)

- ATIS has extended its *Technology Roadmap* and *Data Sharing Framework* reports to a new partnership with US Ignite.
- Industry and cities have partnered to develop a *Smart Cities Data Exchange* specification, to extend data beyond city operational boundaries.

Distributed Ledger Technologies

- ❑ *DLT has the potential to play a key role in the next generation of ICT and applications*
 - *Reduce costs of core network and infrastructure*
- ❑ *Represents a fundamental transformation in the way business is conducted*
 - *Creation of new revenue streams and offers data integrity*
- ❑ *Can be applied to a broad range of applications*
 - *5G, IoT, Content Delivery, OSS/BSS, Verticals*

Blockchain in Telecom Market worth nearly \$1Billion by 2023. (Source: Markets and Markets)



ATIS' DLT initiative is creating:

- Shared DLT Vision
- Roadmap
- Use Case for *proof of concept*
- Early opportunities

- The initiative is assessing a broad range of ICT use cases

Other ATIS Priorities

The *IoT Categorization* initiative assesses the vertical landscape to develop an IoT classification system based on more than 15 critical factors including: latency, data rate, availability, mobility (type/speed) and density.



The study output will use the classification to define network slices based on unique network requirements aiding service providers' efforts to build networks that support a full range of IOT devices and services.



As virtual network functions (VNFs) begin to dominate the market, interconnected clouds and Key Performance Indicator (KPI) metrics across networks will become increasingly critical.

- ATIS has launched a **VNF KPI** Initiative to increase time-to-market flexibility and service agility.

Inter-Domain and Interconnection Solutions

Leadership to maintain trust in communication networks

Specifying a trusted, secure IP communications network-to-network interface between North American service providers



CURRENT ACTIVITIES

Development of standards to address robocalling as well as anti-spoofing caller validation mitigation techniques.

Accepted by the FCC, the *Signature-based Handling of Asserted information using toKENS (SHAKEN)* specification, in conjunction with the IETF's STIR protocol, delivers the ability to authenticate, digitally sign and verify calling party numbers to help stop suspicious calls before they reach subscribers.

ATIS selected as Secure Telephone Identity-Governance Authority



Ensuring integrity of issuance, management, security and use of Secure Telephone Identity certificates issued in compliance with the SHAKEN specification.



Emergency Services and Network Resiliency

Leading Emergency Communications



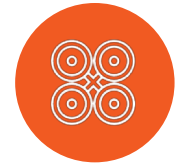
Development of mobile-directed **geo-targeting standards**



Architecture and standards for **wireless emergency alerts** to public via wireless broadcast notifications



Program manager for **911 location technologies** test bed and National Emergency Address Database projects



Use of **UAVs** for **restoring communications** in emergency situations

Protecting Critical Infrastructure

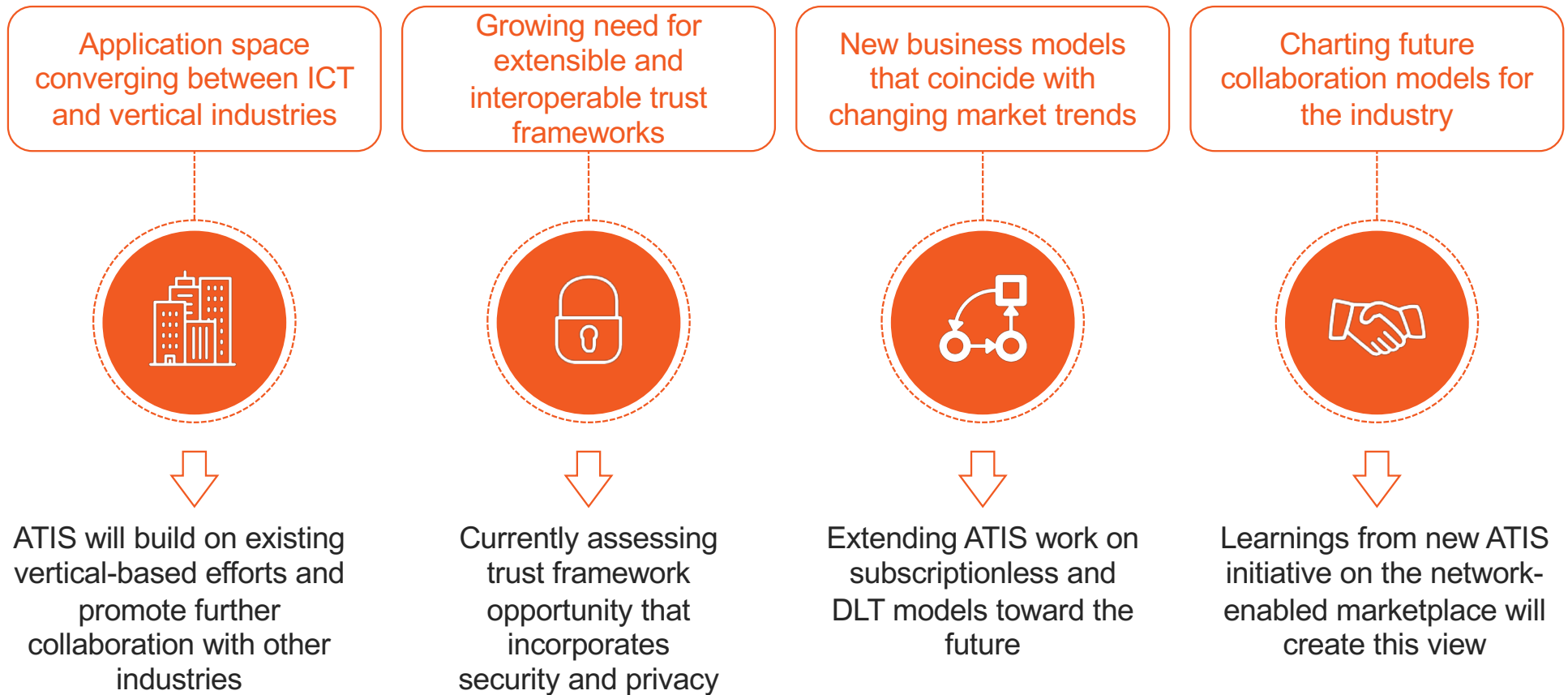
Set standards and best practices for telecom power systems and network protection

Promote awareness of telecom dependence on GPS-delivered timing

Develop resiliency options for ensuring reliable time delivery

Host annual industry forums on “Timing & Synchronization” and “Electrical Protection”

ATIS Future Roadmap





ATIS and its members work together to address the industry's business and technology imperatives, ensuring value is delivered to the larger ecosystem.

The future collaborative model must be value-driven, finely tuned to changing business needs and aligned with the market's need to introduce new technologies at an innovative pace.

ATIS | www.atis.org

ATIS Reports | <http://www.atis.org/whitepapers>

Supplemental Information

ATIS Initiatives, Committees and Partnerships

ATIS Board Strategic Initiatives

- ▼ Innovation Agenda
 - ▶ 5G
 - ▶ Connected Car – Cybersecurity
 - ▶ Context-Aware Identity Management
 - ▶ Cybersecurity
 - ▶ Distributed Ledger Technology
 - ▶ Evolution to Content Optimized Networks
 - ▶ Network-Enabled Artificial Intelligence
 - ▶ Smart Cities
 - ▶ Unmanned Aerial Vehicles

TOPS Council

- ▶ 3GPP Release 17 & Beyond
- ▶ IoT Categorization Focus Group
- ▶ Open Source IoT
- ▶ VNF KPIs for Optimal Cloud Performance

Technical and Operations Committees

- ▶ Automatic Identification & Data Capture Committee
- ▶ Emergency Services Interconnection Forum
- ▶ Industry Numbering Committee
- ▶ International Mobile Subscriber Identity (IMSI) Oversight Council
- ▶ Network Reliability Steering Committee
- ▶ Next Generation Interconnection Interoperability Forum
- ▶ Ordering and Billing Forum
- ▶ Packet Technologies and Systems Committee
- ▶ SMS/800 Number Administration Committee
- ▶ Sustainability In Telecom: Energy and Protection Committee
- ▶ Synchronization Committee
- ▶ Telecom Management and Operations Committee
- ▶ Wireless Technologies and Systems Committee

Special Initiatives

- ▶ ATIS/SIP Forum IP-NNI Joint Task Force
- ▶ Location Accuracy Testbeds and Database

International Partnerships

- ▶ 3GPP
- ▼ oneM2M
 - ▶ ATIS Application-ID Registry

