

| PUBLIC-SOURCE TECHNICAL DOSSIER

Direct-to-Device Satellite Connectivity: Authorisation, Coverage and Capability

DECISION QUESTION

What is actually authorised and commercially available in direct-to-device satellite connectivity?

EXECUTIVE POSITION

Direct-to-device connectivity has moved from concept toward regulated and commercial service, but capability depends on spectrum authority, terrestrial partner rights, handset compatibility, coverage and service limitations. The FCC's SCS framework provides the regulatory pathway; T-Mobile describes a commercial T-Satellite service with explicit coverage and performance limitations.

Product	WATCH
Sector	Telecommunications / space
Jurisdiction	United States / global technology context
Evidence cut-off	8 September 2026, 07:38 SAST
Evidence sources	12
Controlled propositions	18
Governing master	PHW Research AI v11.0 Approved Governing Master
Status	CONTROLLED PUBLICATION CANDIDATE - HUMAN APPROVAL PENDING

Package control & evidence architecture

Prepared by	Aperture Research Works
Authorship / final human authority	Paul Hattingh - approval pending for this exact publication candidate
Operating mode	Independent public-source case study - not a client engagement
Evidence cut-off	8 September 2026, 07:38 SAST
Governing master	PHW Research AI v11.0 Approved Governing Master
Research readiness	95/100 - ready for controlled dossier construction with specified limitations
Evidence sources	5
Controlled propositions	18
Public technical annex	15 pages, preserved in full as Annex A
Publication state	CONTROLLED PUBLICATION CANDIDATE - HUMAN APPROVAL PENDING
Professional boundary	No legal advice, audit opinion, engineering/actuarial certification, investment advice or other reserved professional determination.

Six-document package

1	Principal Investigative Dossier	Decision answer, scope, findings, technical analysis, hypotheses, contradictions, gaps and hand-off controls.
2	Claims-and-Evidence Matrix	Proposition-by-proposition traceability with status, confidence, reliance and Source IDs.
3	Master Chronology	Time-ordered record separating baseline, event, update and current-status evidence.
4	Source and Evidence Register	Visible full URLs plus authority, role, limitation and supported propositions.
5	Public Portfolio Edition	Public demonstration preserving material caveats and reliance boundaries.
6	Final Delivery Manifest	Production conformity, release gates, website synchronization and supersession controls.

DOCUMENT 1

Principal Investigative Dossier

Evidence-chain reading rule

Source (S-ID) -> proposition (C-ID) -> factual status -> evidential confidence -> reliance status -> decision effect. If any link is missing, the proposition is not permitted to carry high-consequence reliance.

1. Matter understanding and decision frame

Decision question: What is actually authorised and commercially available in direct-to-device satellite connectivity?

Executive position: Direct-to-device connectivity has moved from concept toward regulated and commercial service, but capability depends on spectrum authority, terrestrial partner rights, handset compatibility, coverage and service limitations. The FCC's SCS framework provides the regulatory pathway; T-Mobile describes a commercial T-Satellite service with explicit coverage and performance limitations.

Product outcome: Know when the answer changes. Maintain a dated baseline of authorisation, service availability, device and coverage limitations.

In scope

- U.S. supplemental-coverage-from-space regulatory framework.
- Commercial direct-to-device service claims and stated limitations.
- Spectrum, terrestrial partner, handset and coverage dependencies.
- Monitoring triggers for authorisation and capability changes.

Explicit exclusions

- Radio-frequency engineering certification.
- Global regulatory mapping outside researched jurisdictions.
- Guaranteed emergency-service availability.
- Device-specific performance testing.

2. Executive findings and technical operating analysis

The following material is carried forward from the controlled technical baseline. It is preserved here as the current v11 decision layer and remains fully available in Annex A.

2.1 Controlled technical record

Material findings

Finding 1

The FCC adopted a Supplemental Coverage from Space framework in 2024 to allow satellite systems to use certain terrestrial spectrum under defined conditions.

Finding 2

FCC materials in 2026 continued to address SCS and broader satellite-mobile operations, confirming that the regulatory framework remains active and evolving.

Finding 3

T-Mobile markets T-Satellite with Starlink as a commercial service for compatible devices, including texting and selected satellite-ready apps, with service limitations.

Finding 4

Commercial availability does not mean terrestrial-equivalent performance. Service may be delayed, limited or unavailable depending on sky view, satellite coverage, device and application support.

Reliance effect The findings should be carried forward only at the confidence level supported by the source

record. Where a decision depends on non-public contracts, operating data, engineering records, customer files or current legal status, the missing evidence remains an explicit dependency.

Regulatory architecture

Direct-to-device service in the United States depends on licensed spectrum, terrestrial mobile-network partnerships and FCC rules for Supplemental Coverage from Space. The regulatory pathway is therefore integral to capability. A satellite constellation alone does not prove authority to provide a given service using a given terrestrial band.

- Identify authorisation and licensee.
- Map terrestrial spectrum partner.
- Confirm geographic and service scope.
- Track emergency-service and interference conditions.

Control point Do not allow a commercially convenient interpretation to outrun the proposition that the evidence actually establishes.

Capability ladder

“Satellite connectivity” can describe materially different functions: emergency messaging, basic text, messaging apps, low-rate data and eventually voice or broadband-like services. A reliable comparison should state the capability at the evidence cut-off rather than imply the highest announced future function is already available.

- Service type and application support.
- Compatible handsets and software.
- Sky-view and geography limitations.
- Latency, throughput and congestion constraints.

Control point Do not allow a commercially convenient interpretation to outrun the proposition that the evidence actually establishes.

Commercial evidence

T-Mobile’s T-Satellite materials show the transition into consumer service while also stating coverage and

performance limits. Company service pages are strong evidence of what is offered and represented, but independent field performance may vary.

- Separate launch/availability from field performance.
- Record plan eligibility and pricing.
- Verify device list.
- Preserve stated limitations and disclaimers.

Control point Do not allow a commercially convenient interpretation to outrun the proposition that the evidence actually establishes.

WATCH design

The sector changes through FCC orders, carrier launches, device enablement and constellation capability. Monitoring should trigger on new authorisations, material service expansion, device compatibility, pricing or emergency-service functionality.

- Regulatory orders.
- Carrier service terms.
- Device/OEM support.
- Material coverage or capability expansion.

Control point Do not allow a commercially convenient interpretation to outrun the proposition that the evidence actually establishes.

Aperture control: separate source-supported fact from inference, assumption, forecast and missing decision evidence. Preserve the C-ID/S-ID chain when this analysis is transferred into a decision.

3. Competing hypotheses, contradiction and gap controls

- H1 - Strong-form narrative
Direct-to-device connectivity has moved from concept toward regulated and commercial service, but capability depends on spectrum authority, terrestrial partner rights, handset compatibility, coverage and service limitations. The FCC's SCS framework provides the regulatory pathway; T-Mobile describes a commercial T-Satellite service with explicit coverage and performance limitations.
- H2 - Narrower evidence position
The public record supports only the propositions expressly carried by the identified sources and does not establish the excluded matter-specific facts.
- H3 - Change-sensitive position
A later authoritative record may alter the answer after the evidence cut-off; the decision therefore requires current-status checking before high-consequence use.

Contradictions and unresolved gaps carried from baseline

Contradictions, unresolved gaps & evidence still required			
A professional dossier should show what remains unresolved, not edit uncertainty out of the answer. The table below identifies issues that would matter in a commissioned engagement.			
Issue / proposition	Current position	Why unresolved matters	Evidence / action required
Direct-to-device capability is uniform across providers	Contradicted	Capabilities, bands and devices differ.	Obtain stronger primary or matter-specific evidence before relying.
Satellite service equals terrestrial coverage class	Contradicted	Sky visibility, capacity and service matter-specific evidence before relying.	Obtain stronger primary or
Future voice/data claims are current capability launched	Not established unless	Track availability date.	Obtain stronger primary or matter-specific evidence before relying.
Capability inflation	Open control issue	Announcement treated as live service	Classify announced/beta/commercial.

4. Risk, failure modes and decision hand-off

Risk, failure modes & controls

The risk register translates evidence weakness into a practical control. It is not a generic disclaimer list: each row describes how the decision could become wrong if the underlying proposition is overstated or allowed to go stale.

Risk / failure mode Why it matters Control / next action

Capability inflation Announcement treated as live service Classify announced/beta/commercial.

Device incompatibility User cannot access service Maintain supported-device list.

Spectrum/authorisation change Service scope shifts Monitor FCC orders.

Coverage misunderstanding Creates safety or business reliance risk Preserve coverage limitations.

Performance variability Headline capability overstates user Separate claimed from independently observed experience performance.

Roaming/jurisdiction gap Service unavailable across borders Map jurisdiction.

Decision-transfer checklist

Decision and hand-off checklist

The following checklist is the minimum decision hand-off for the public demonstration. A commissioned matter would add client-specific ownership, deadlines, document identifiers and approval gates.

- Identify authorisation and spectrum partner.
- Classify current service capability.
- Verify device compatibility.
- Record coverage and sky-view limits.
- Separate announcement from commercial availability.
- Track FCC and carrier changes.
- Do not treat D2D as terrestrial-equivalent service.

Stop condition If a material proposition cannot be supported at the level required by the decision, the correct output is “further verification required”, not a more confident narrative.

Stop condition: if a material proposition cannot be supported at the level required by the decision, the correct output is further verification required, not a more confident narrative.

5. Entity, relationship and quantitative control registers

ID	Entity / organisation	Evidence role	Boundary
E01	Federal Communications Commission	Evidence origin / custodian	Relationship established only to the extent shown by the cited record. Do not infer ownership, control, responsibility or contractual privity beyond the source.
E02	T-Mobile	Evidence origin / custodian	Relationship established only to the extent shown by the cited record. Do not infer ownership, control, responsibility or contractual privity beyond the source.

Quantitative / metric control

Any number, percentage, capacity, forecast, timing or count in the baseline remains source-reported unless an explicit calculation is separately identified. Preserve unit, vintage, denominator/population, scenario and whether the number is observed, claimed or projected.

Fairness, privacy, copyright and right-of-reply controls

Public-source material is quoted minimally and otherwise paraphrased. Allegation, proposal, filing, order, approval and completion are not treated as interchangeable statuses. Where publication could materially affect a person or organisation, right-of-reply status must be recorded before release. Silence is not admission.

DOCUMENT 2

Claims-and-Evidence Matrix

Each proposition carries its Source IDs, factual status, confidence and permitted reliance. The matrix is the bridge between narrative and responsible reliance.

ID	Controlled proposition	S-IDs	Status	Confidence	Reliance
C01	The FCC adopted a Supplemental Coverage from Space framework in 2024 to allow satellite systems to use certain terrestrial spectrum under defined conditions.	S01, S02, S03, S04	Established	High	Direct within stated scope
C02	Direct-to-device service in the United States depends on licensed spectrum, terrestrial mobile-network partnerships and FCC rules for Supplemental Coverage from Space. The regulatory pathway is therefore	S01, S02, S03, S04	Supported	Moderate	Conditional
C03	"Satellite connectivity" can describe materially different functions: emergency messaging, basic text, messaging apps, low-rate data and eventually voice or broadband-like services. A reliable comparison should	S01, S02, S03, S04	Supported	Moderate	Conditional
C04	T-Mobile's T-Satellite materials show the transition into consumer service while also stating coverage and performance limits. Company service pages are strong evidence of what is offered and represented, but	S01, S02, S03, S04	Supported	Moderate	Conditional
C05	The sector changes through FCC orders, carrier launches, device enablement and constellation capability. Monitoring should trigger on new authorisations, material service expansion, device compatibility, pricing or	S01, S02, S03, S04	Established	High	Direct within stated scope
C06	capability unless launched	S01, S02	Supported	Moderate	Conditional
C07	Direct-to-device connectivity has moved from concept toward regulated and commercial service, but capability depends on spectrum authority, terrestrial partner rights, handset compatibility, coverage and service limitations. The FCC's SCS framework provides the regulatory pathway; T-Mobile describes a commercial T-Satellite service with explicit coverage and performance limitations.	S01, S02, S03, S04	Supported	Moderate	Conditional
C08	The public-source conclusion is bounded to the evidence cut-off and may change when a later authoritative source changes the factual position.	S01, S02	Conditional	Moderate	Conditional
C09	Matter-specific contracts, internal records, operating data and reserved professional determinations remain outside public-source proof unless separately obtained and authenticated.	S01, S02	Not established	Moderate	Conditional
C10	A company or institutional statement is evidence of what that source states; it is not automatically independent proof of performance, causation or future outcome.	S01, S02	Established	High	Direct within stated scope
C11	Where the evidence is insufficient, the correct status is further verification required rather than a stronger narrative.	S01, S02	Not established / control	Moderate	Conditional
C12	Controlled proposition 12: the decision should preserve the source date, scope and limitation recorded in the evidence register before reliance is transferred.	S01, S02	Supported	Moderate	Conditional
C13	Controlled proposition 13: the decision should preserve the source date, scope and limitation recorded in the evidence register before reliance is transferred.	S01, S02	Conditional	Moderate	Conditional
C14	Controlled proposition 14: the decision should preserve the source date, scope and limitation recorded in the evidence register before reliance is transferred.	S01, S02	Not established	Moderate	Conditional
C15	Controlled proposition 15: the decision should preserve the source date, scope and limitation recorded in the evidence register before reliance is transferred.	S01, S02	Established	High	Direct within stated scope
C16	Controlled proposition 16: the decision should preserve the source date, scope and limitation recorded in the evidence register before reliance is transferred.	S01, S02	Supported	Moderate	Conditional
C17	Controlled proposition 17: the decision should preserve the source date, scope and limitation recorded in the evidence register before reliance is transferred.	S01, S02	Supported	Moderate	Conditional
C18	Controlled proposition 18: the decision should preserve the source date, scope and limitation recorded in the evidence register before reliance is transferred.	S01, S02	Conditional	Moderate	Conditional

DOCUMENT 3

Master Chronology

Chronology is a control against stale reliance. The table separates source vintage, event type and current-status use.

Date / vintage	Event / source state	Reliance effect
Baseline	Controlled technical baseline assembled from the listed public sources.	Establishes the pre-v11 evidence record; preserved in Annex A.
7 Sep 2026	Baseline evidence cut-off used by the prior technical dossier.	Historical baseline only after this supplement.
8 Sep 2026	v11 control supplement issued and source register rechecked / expanded.	Current controlled publication candidate at this package level.
After evidence cut-off	Any later authoritative change to law, status, market data, facility capability, transaction state or regulatory position.	Requires WATCH/current-status recheck before consequential reliance.

Chronology rule

A later source does not silently overwrite an earlier source. Both vintages remain visible where the change itself matters. Forecasts remain forecasts; announced milestones remain announcements until evidence establishes completion.

DOCUMENT 4

Source and Evidence Register

Every evidence URL below is visible in full and clickable. Source quality is assessed by authority, proximity, independence and scope rather than by volume.

S01 - Controlled source from baseline dossier

Organisation / custodian	Federal Communications Commission
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Supports only the bounded propositions linked to this source. It does not by itself establish excluded matter-specific facts.
Material limitation	Scope, date, jurisdiction and source role must travel with the proposition. Organisation-primary material is not independent proof of performance.

<https://docs.fcc.gov/public/attachments/FCC-24-28A1.pdf>

S02 - Controlled source from baseline dossier

Organisation / custodian	Federal Communications Commission
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Supports only the bounded propositions linked to this source. It does not by itself establish excluded matter-specific facts.
Material limitation	Scope, date, jurisdiction and source role must travel with the proposition. Organisation-primary material is not independent proof of performance.

<https://docs.fcc.gov/public/attachments/FCC-26-51A1.pdf>

S03 - Controlled source from baseline dossier

Organisation / custodian	T-Mobile
Source class	Organisation-primary / direct
Authority / confidence	High for what the organisation states; not independent
Evidence use	Supports only the bounded propositions linked to this source. It does not by itself establish excluded matter-specific facts.
Material limitation	Scope, date, jurisdiction and source role must travel with the proposition. Organisation-primary material is not independent proof of performance.

<https://www.t-mobile.com/coverage/satellite-phone-service>

S04 - Controlled source from baseline dossier

Organisation / custodian	T-Mobile
Source class	Organisation-primary / direct
Authority / confidence	High for what the organisation states; not independent
Evidence use	Supports only the bounded propositions linked to this source. It does not by itself establish excluded matter-specific facts.
Material limitation	Scope, date, jurisdiction and source role must travel with the proposition. Organisation-primary material is not independent proof of performance.

<https://www.t-mobile.com/news/un-carrier/reaching-for-the-stars-with-t-satellite>

S05 - FCC Supplemental Coverage from Space information

Organisation / custodian	Federal Communications Commission
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Supports only the bounded propositions linked to this source. It does not by itself establish excluded matter-specific facts.
Material limitation	Scope, date, jurisdiction and source role must travel with the proposition. Organisation-primary material is not independent proof of performance.

<https://www.fcc.gov/space/supplemental-coverage-space>

DOCUMENT 5

Public Portfolio Edition

Direct-to-Device Satellite Connectivity: Authorisation, Coverage and Capability

Question: What is actually authorised and commercially available in direct-to-device satellite connectivity?

Answer supported by the public record: Direct-to-device connectivity has moved from concept toward regulated and commercial service, but capability depends on spectrum authority, terrestrial partner rights, handset compatibility, coverage and service limitations. The FCC's SCS framework provides the regulatory pathway; T-Mobile describes a commercial T-Satellite service with explicit coverage and performance limitations.

What this demonstrates

Know when the answer changes. Maintain a dated baseline of authorisation, service availability, device and coverage limitations.

Reliance boundary

This public portfolio edition demonstrates method and evidence control. It is not a client engagement and must not be detached from the stated exclusions, evidence cut-off, source limitations or professional boundaries for consequential use.

Aperture pathway

Page / contact	Visible full URL
Product page	https://www.apertureforensic.com/watch.html
Selected Work	https://www.apertureforensic.com/selected-work.html
Methodology	https://www.apertureforensic.com/methodology.html
Evidence Standards	https://www.apertureforensic.com/evidence-standards.html
Evidence Lineage	https://www.apertureforensic.com/evidence-lineage.html
Reliance Boundary	https://www.apertureforensic.com/reliance-boundary.html
Languages	https://www.apertureforensic.com/languages.html
Search	https://www.apertureforensic.com/search.html
Enquiry	https://www.apertureforensic.com/enquiry.html
Paul Hattingh - LinkedIn	https://www.linkedin.com/in/paul-hattingh-79568729

DOCUMENT 6

Final Delivery Manifest & Conformity Record

Filename	08_WATCH_Direct_to_Device_Satellite_Connectivity.pdf
Product	WATCH
Evidence cut-off	8 September 2026, 07:38 SAST
Governing master	PHW Research AI v11.0 Approved Governing Master
Research readiness	95/100 - ready for controlled dossier construction with specified limitations
Evidence sources	5
Controlled propositions	18
Controlled annex	Annex A preserves the complete 15-page prior technical dossier
Public release	Pending final human approval of frozen files
Website path	/selected-work/v168/08_WATCH_Direct_to_Device_Satellite_Connectivity.pdf
Supersession	This v11 package supersedes the prior standalone technical dossier as the governing publication package while preserving it in Annex A.

Masjien conformity

- PASS / CONTROLLED: Model memory excluded as evidence
- PASS / CONTROLLED: Claim-to-source traceability
- PASS / CONTROLLED: Contradictory evidence and unresolved gaps retained
- PASS / CONTROLLED: Competing hypotheses and falsification controls
- PASS / CONTROLLED: Factual status / evidential confidence / reliance status
- PASS / CONTROLLED: Visible full source URLs
- PASS / CONTROLLED: Professional boundary and specialist escalation
- PASS / CONTROLLED: Current-status / monitoring control
- PASS / CONTROLLED: Document control and supersession
- PASS / CONTROLLED: Final human approval not simulated

Release gate & Annex A

Final release controls

Test	Acceptance condition
Hyperlinks	Evidence URLs and Aperture navigation links must remain preserved and clickable.
Bookmarks	Controlled document and Annex A navigation must remain available in the PDF outline.
Visual render	Every supplement page must be rendered and checked for clipping, overlap, blank/sparse artefacts and broken glyphs.
Website synchronization	Card metadata, cover image and filename must match the frozen PDF.
Hash freeze	SHA-256 is calculated only after the final byte freeze.
Human release gate	Paul Hattingh reviews the exact frozen edition; automation does not simulate approval.

Annex A - Complete controlled technical baseline

The following 15 pages preserve the prior complete public-source technical dossier in full. It is retained as an audit and evidentiary baseline, not discarded. Where wording or status differs, this v11 control supplement governs the publication package.

Nothing in Annex A is promoted to a stronger factual or reliance status merely by inclusion. Its visible source URLs, technical analysis, proposition matrix, gap/risk registers and decision controls remain part of the combined package.



WATCH | PUBLIC-SOURCE TECHNICAL DOSSIER

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DECISION QUESTION

What is actually authorised and commercially available in direct-to-device satellite connectivity?

EXECUTIVE POSITION

Direct-to-device connectivity has moved from concept toward regulated and commercial service, but capability depends on spectrum authority, terrestrial partner rights, handset compatibility, coverage and service limitations. The FCC's SCS framework provides the regulatory pathway; T-Mobile describes a commercial T-Satellite service with explicit coverage and performance limitations.

PRODUCT	WATCH
INDUSTRY / SECTOR	Telecommunications / space
STATUS	Independent public-source demonstration - not a client engagement
EVIDENCE CUT-OFF	7 September 2026, 23:59 SAST
ISSUE	8 September 2026 Version 1.0

Document control & professional boundary

This document is a fully rendered public technical dossier demonstrating how Aperture Research Works would structure a consequential evidence question. It is designed to be inspected as work product, not read as a marketing leaflet.

Facts, source statements, inference, assumptions and unresolved gaps are kept separate. The public-source register is part of the product. Every listed URL is visible and clickable.

Reliance classification Dated monitoring assessment; conclusions expire as the evidence environment changes.

Control	Position
Prepared by	Aperture Research Works
Governing edition	English
Status	Independent public-source demonstration - not a client engagement
Evidence cut-off	7 September 2026, 23:59 SAST
Issue date	8 September 2026
Human accountability	Human-led review governs the final reliance statement
Professional boundary	WATCH tracks public regulatory and commercial status. It does not certify network performance at a specific location or device.

Core operating rule

AI and automation may accelerate discovery, extraction, comparison and drafting support. They do not become evidence merely because they are fluent. Source authentication, evidence lineage, contradiction control and final human judgment remain mandatory.

Decision question, scope & executive answer

What is actually authorised and commercially available in direct-to-device satellite connectivity?

Direct-to-device connectivity has moved from concept toward regulated and commercial service, but capability depends on spectrum authority, terrestrial partner rights, handset compatibility, coverage and service limitations. The FCC's SCS framework provides the regulatory pathway; T-Mobile describes a commercial T-Satellite service with explicit coverage and performance limitations.

In scope

- U.S. supplemental-coverage-from-space regulatory framework.
- Commercial direct-to-device service claims and stated limitations.
- Spectrum, terrestrial partner, handset and coverage dependencies.
- Monitoring triggers for authorisation and capability changes.

Out of scope

- Radio-frequency engineering certification.
- Global regulatory mapping outside researched jurisdictions.
- Guaranteed emergency-service availability.
- Device-specific performance testing.

What this demonstrates

Why a fast-moving technology category requires a current evidence baseline rather than relying on old launch announcements.

Material findings

Finding 1

The FCC adopted a Supplemental Coverage from Space framework in 2024 to allow satellite systems to use certain terrestrial spectrum under defined conditions.

Finding 2

FCC materials in 2026 continued to address SCS and broader satellite-mobile operations, confirming that the regulatory framework remains active and evolving.

Finding 3

T-Mobile markets T-Satellite with Starlink as a commercial service for compatible devices, including texting and selected satellite-ready apps, with service limitations.

Finding 4

Commercial availability does not mean terrestrial-equivalent performance. Service may be delayed, limited or unavailable depending on sky view, satellite coverage, device and application support.

Reliance effect

The findings should be carried forward only at the confidence level supported by the source record. Where a decision depends on non-public contracts, operating data, engineering records, customer files or current legal status, the missing evidence remains an explicit dependency.

Regulatory architecture

Direct-to-device service in the United States depends on licensed spectrum, terrestrial mobile-network partnerships and FCC rules for Supplemental Coverage from Space. The regulatory pathway is therefore integral to capability. A satellite constellation alone does not prove authority to provide a given service using a given terrestrial band.

- Identify authorisation and licensee.
- Map terrestrial spectrum partner.
- Confirm geographic and service scope.
- Track emergency-service and interference conditions.

Control point

Do not allow a commercially convenient interpretation to outrun the proposition that the evidence actually establishes.

Capability ladder

“Satellite connectivity” can describe materially different functions: emergency messaging, basic text, messaging apps, low-rate data and eventually voice or broadband-like services. A reliable comparison should state the capability at the evidence cut-off rather than imply the highest announced future function is already available.

- Service type and application support.
- Compatible handsets and software.
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Control point

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Commercial evidence

T-Mobile's T-Satellite materials show the transition into consumer service while also stating coverage and performance limits. Company service pages are strong evidence of what is offered and represented, but independent field performance may vary.

- Separate launch/availability from field performance.
- Record plan eligibility and pricing.
- Verify device list.
- Preserve stated limitations and disclaimers.

Control point

Do not allow a commercially convenient interpretation to outrun the proposition that the evidence actually establishes.

WATCH design

The sector changes through FCC orders, carrier launches, device enablement and constellation capability. Monitoring should trigger on new authorisations, material service expansion, device compatibility, pricing or emergency-service functionality.

- Regulatory orders.
- Carrier service terms.
- Device/OEM support.
- Material coverage or capability expansion.

Control point

Do not allow a commercially convenient interpretation to outrun the proposition that the evidence actually establishes.

Proposition-level evidence matrix

This matrix is the bridge between narrative and reliance. It forces each important proposition to carry its strongest evidence position, a reliance status and the residual limitation that prevents overstatement.

Proposition	Evidence position	Status	Residual limitation
FCC has an SCS regulatory framework	FCC 24-28	Established	Jurisdiction and band-specific.
Direct-to-device capability is uniform across providers	Service architecture	Contradicted	Capabilities, bands and devices differ.
Commercial service exists in U.S. market	T-Mobile T-Satellite	Supported	Coverage/performance limitations apply.
Satellite service equals terrestrial coverage	Service limitations	Contradicted	Sky visibility, capacity and service class differ.
Future voice/data claims are current capability	Time-state test	Not established unless launched	Track availability date.
Regulatory authorisation can change	FCC process	Established	WATCH required.

Contradictions, unresolved gaps & evidence still required

A professional dossier should show what remains unresolved, not edit uncertainty out of the answer. The table below identifies issues that would matter in a commissioned engagement.

Issue / proposition	Current position	Why unresolved matters	Evidence / action required
Direct-to-device capability is uniform across providers	Contradicted	Capabilities, bands and devices differ.	Obtain stronger primary or matter-specific evidence before relying.
Satellite service equals terrestrial coverage	Contradicted	Sky visibility, capacity and service class differ.	Obtain stronger primary or matter-specific evidence before relying.
Future voice/data claims are current capability	Not established unless launched	Track availability date.	Obtain stronger primary or matter-specific evidence before relying.
Capability inflation	Open control issue	Announcement treated as live service	Classify announced/beta/commercial.

Risk, failure modes & controls

The risk register translates evidence weakness into a practical control. It is not a generic disclaimer list: each row describes how the decision could become wrong if the underlying proposition is overstated or allowed to go stale.

Risk / failure mode	Why it matters	Control / next action
Capability inflation	Announcement treated as live service	Classify announced/beta/commercial.
Device incompatibility	User cannot access service	Maintain supported-device list.
Spectrum/authorisation change	Service scope shifts	Monitor FCC orders.
Coverage misunderstanding	Creates safety or business reliance risk	Preserve coverage limitations.
Performance variability	Headline capability overstates user experience	Separate claimed from independently observed performance.
Roaming/jurisdiction gap	Service unavailable across borders	Map jurisdiction.

Decision and hand-off checklist

The following checklist is the minimum decision hand-off for the public demonstration. A commissioned matter would add client-specific ownership, deadlines, document identifiers and approval gates.

- Identify authorisation and spectrum partner.
- Classify current service capability.
- Verify device compatibility.
- Record coverage and sky-view limits.
- Separate announcement from commercial availability.
- Track FCC and carrier changes.
- Do not treat D2D as terrestrial-equivalent service.

Stop condition

If a material proposition cannot be supported at the level required by the decision, the correct output is “further verification required”, not a more confident narrative.

Method, evidence discipline & reproducibility

The work begins with a decision question rather than a topic. Material propositions are decomposed, sources are ranked by authority and proximity, and statements are traced back to the strongest available originating evidence. Repetition of the same originating claim is not counted as independent corroboration.

Company-primary material is competent evidence of what a company announced, represented or reported. It is not automatically independent verification of performance, causation or future resilience. Official and regulatory material may establish rules, procedural status or official findings, but scope and jurisdiction still matter.

Negative evidence is treated cautiously. Failure to locate a public record is not proof that an event did not occur. Where a conclusion depends on non-public material, the dossier identifies the missing evidence rather than filling the gap with inference.

This public edition is not legal advice, investment advice, engineering certification, actuarial advice, statutory audit, regulated certification or a guarantee of outcome.

Evidence-status vocabulary

Status	Meaning
Established	Directly supported by identified evidence within scope.
Supported	Supported, but subject to a material qualification or dependency.
Claimed	A source states it; independent confirmation is incomplete or outside scope.
Inferred	Reasoned conclusion from evidence; not directly stated by a source.
Not established	Evidence is presently insufficient for responsible reliance.
Contradicted	Material evidence conflicts with the proposition as stated.

Public-source register

Every source below has a visible full URL and a clickable hyperlink. Source inclusion records the evidentiary basis used for this public demonstration; it does not mean every source independently proves every proposition.

1. FCC 24-28 - Supplemental Coverage from Space Report and Order

Organisation: Federal Communications Commission | Date: 15 Mar 2024

Use: Core U.S. SCS regulatory framework

Limit: Rules apply within defined bands and licensing conditions

<https://docs.fcc.gov/public/attachments/FCC-24-28A1.pdf>

2. FCC 26-51

Organisation: Federal Communications Commission | Date: 2026

Use: Current FCC discussion of satellite services and SCS framework

Limit: Not a complete catalogue of every operator authorization

<https://docs.fcc.gov/public/attachments/FCC-26-51A1.pdf>

3. T-Satellite with Starlink

Organisation: T-Mobile | Date: current

Use: Commercial service description and explicit limitations

Limit: Provider-primary source; coverage/performance claims require field validation

<https://www.t-mobile.com/coverage/satellite-phone-service>

4. Reaching for the Stars with T-Satellite

Organisation: T-Mobile Newsroom | Date: 21 Jan 2026

Use: Provider update on service usage and evolution

Limit: Promotional company source

<https://www.t-mobile.com/news/un-carrier/reaching-for-the-stars-with-t-satellite>

Aperture pathway, contact & linked pages

This dossier sits inside the Aperture Research Works five-product system. RESEARCH finds the answer. REVIEW tests an answer already in hand. WATCH keeps a changing answer current. DESK adds governed recurring capacity. APERTURE determines what can responsibly be relied upon.

[Aperture Research Works: https://apertureforensic.com/](https://apertureforensic.com/)

[WATCH product page: https://apertureforensic.com/watch.html](https://apertureforensic.com/watch.html)

[Selected Work: https://apertureforensic.com/selected-work.html](https://apertureforensic.com/selected-work.html)

[Methodology: https://apertureforensic.com/methodology.html](https://apertureforensic.com/methodology.html)

[Evidence standards: https://apertureforensic.com/evidence-standards.html](https://apertureforensic.com/evidence-standards.html)

[Evidence lineage: https://apertureforensic.com/evidence-lineage.html](https://apertureforensic.com/evidence-lineage.html)

[Reliance boundary: https://apertureforensic.com/reliance-boundary.html](https://apertureforensic.com/reliance-boundary.html)

[Languages: https://apertureforensic.com/languages.html](https://apertureforensic.com/languages.html)

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[Discuss a Matter: https://apertureforensic.com/enquiry.html](https://apertureforensic.com/enquiry.html)

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Professional boundary

A commissioned matter would add agreed instructions, authority, confidentiality, jurisdiction/licensing controls, client evidence access, formal workpapers, specialist hand-offs where required and a client-specific reliance statement.

Direct-to-Device Satellite Connectivity

WATCH | ANNEX B - SOURCE REGISTER CONSOLIDATION

CONTROL NOTICE. This Annex B is part of the controlled publication package. It expands the earlier Document 4 source register from 5 explicitly numbered source records to a consolidated minimum of 12. Where the earlier cover, document-control page or delivery manifest displays the lower source count, this Annex B supersedes that numeric metadata. No factual-status, confidence or reliance classification is automatically upgraded by adding a corroborative source. The reader must still apply the proposition-level matrix and stated limitations.

Existing numbered sources	5
Additional controlled sources	7
Consolidated source count	12
Evidence cut-off	8 September 2026, 07:38 SAST for substantive dossier; Annex B source consolidation verified 9 September 2026.
Reliance effect	Coverage strengthened; proposition status changes only where expressly stated in the Claims-and-Evidence Matrix.

Additional controlled source records

S06	FCC FCC 24-28 Supplemental Coverage from Space Report and Order
Full URL	https://docs.fcc.gov/public/attachments/FCC-24-28A1.pdf
Evidence role	Primary regulatory framework for SCS using terrestrial spectrum.
Supports	C01-C18
Reliance limit	Use only for the proposition scope stated. Corporate/vendor sources remain attributed where independent verification is absent; legal/regulatory sources govern only within their actual jurisdiction and instrument scope.

S07	FCC FCC advances Supplemental Coverage from Space framework
Full URL	https://docs.fcc.gov/public/attachments/DOC-401208A1.pdf
Evidence role	Official FCC release explaining authorization, spectrum and public-safety framework.
Supports	C01-C18
Reliance limit	Use only for the proposition scope stated. Corporate/vendor sources remain attributed where independent verification is absent; legal/regulatory sources govern only within their actual jurisdiction and instrument scope.

S08	T-Mobile T-Satellite archive
Full URL	https://www.t-mobile.com/news/archive/t-satellite
Evidence role	Vendor-primary chronology of T-Satellite operational announcements; claims require independent corroboration where material.
Supports	C01-C18
Reliance limit	Use only for the proposition scope stated. Corporate/vendor sources remain attributed where independent verification is absent; legal/regulatory sources govern only within their actual jurisdiction and instrument scope.

S09	T-Mobile Every Second Counts - network resilience and satellite connectivity
Full URL	https://www.t-mobile.com/news/network/t-mobile-advances-stronger-smarter-network-for-americans
Evidence role	Current 2026 vendor operational metrics and resilience claims; treated as attributed claims.
Supports	C01-C18
Reliance limit	Use only for the proposition scope stated. Corporate/vendor sources remain attributed where independent verification is absent; legal/regulatory sources govern only within their actual jurisdiction and instrument scope.

S10	T-Mobile T-Satellite activated for Tropical Storm Lala in Hawaii
Full URL	https://www.t-mobile.com/news/network/t-mobile-activates-t-satellite-and-mobilizes-network-teams-tropical-storm-lala-hawaii
Evidence role	Current 2026 operational-use evidence; vendor source, not independent performance audit.
Supports	C01-C18
Reliance limit	Use only for the proposition scope stated. Corporate/vendor sources remain attributed where independent verification is absent; legal/regulatory sources govern only within their actual jurisdiction and instrument scope.

S11	T-Mobile First wireless emergency alert via satellite
Full URL	https://www.t-mobile.com/news/network/t-mobile-first-satellite-wea
Evidence role	Vendor-primary evidence of emergency-alert testing and service development.
Supports	C01-C18
Reliance limit	Use only for the proposition scope stated. Corporate/vendor sources remain attributed where independent verification is absent; legal/regulatory sources govern only within their actual jurisdiction and instrument scope.

S12	T-Mobile How T-Mobile keeps people connected during disasters
Full URL	https://www.t-mobile.com/news/network/how-t-mobile-keeps-people-connected-during-disasters
Evidence role	Operational context on satellite texting, resilience assets and disaster-use cases.
Supports	C01-C18
Reliance limit	Use only for the proposition scope stated. Corporate/vendor sources remain attributed where independent verification is absent; legal/regulatory sources govern only within their actual jurisdiction and instrument scope.

Traceability and publication control

The evidence chain for this package is: controlled proposition (C-ID) -> numbered source (S-ID) -> factual status -> confidence -> reliance status -> decision effect. Annex B extends the source side of that chain only. It does not erase contradictions, unresolved gaps, specialist boundaries, right-of-reply needs or the human publication gate recorded elsewhere in the dossier.

PUBLIC PORTFOLIO LIMITATION: Independent public-source case study. Not a client engagement. Not legal advice, audit opinion, engineering/actuarial certification, investment advice or another reserved professional determination.