

# Apex Standards Software-as-a-Service (SaaS) Product Matrix

| Code   | ASS-10 <sup>[1][2]</sup>   |   |  |                                    |   | ASS-11 <sup>[3][4][5][6][7][8][9][10]</sup>                    |  |   |   |  | ASS-12 <sup>[11][12]</sup>  |  |  |  | ASS-13 <sup>[13][14]</sup>                                 |   |   | ASS-20 <sup>[15]</sup>   |   |   | ASS-30   |   | AST-40   |  |
|--|--|---|--|------------------------------------|---|--|--|---|---|--|---|--|--|--|--|---|---|--|---|---|--|---|--|--|
| SaaS Product   | ETSI SEP Analysis  |   |  |                                    |   | 3GPP TDoc Analysis   |  |   |   |  | TS Section Essentiality Analysis  |  |  |  | SEP-TDoc-TS Knowledge Graph                                |   |   | IEEE 802.11 Wi-Fi Analysis                                       |   |   | Open-RAN Analysis  |   | ITI-T JCT-VC Analysis  |  |
| Strategic Objective  | Global Patent Registry (WO, US, EP, FR, DE, GB, CN, JP, KR, TW, IN, AU, etc) | Declared Patents & Declaration History Look-up and Subject Matter Comparisons | Undeclared Patents and TS-Relevance Search | SEP-TS-Version-Section Association | Standard Essentiality Ranking & Landscaping | All Technical Specification Groups (TSG) & Working Groups (WG) | Standardization Historic Construction & TSG/WG Cross Reference | Standardization Decision Making and Bifurcation Tracking (Understand How Key Decisions were Negotiated and Handled) | Change Request (CR) Genealogy Tracking & Version/Revision Visualization | TDoc / Work Item (WI) / TS Due Diligence | Standard Essentiality Search by Release, TS, Version, Section Clause, and Page No | SEP Discovery, Validation and Verification | Relevant Illustrative Specific Part of the Standard (Section Clauses) Candidacy Search & Ranking | TS Section Clause to Another TS Section Clause Technical Reference | Patent, TS, TDoc, Section Relational Network Visualization | See the Vicinity of Focal Patents and Other Critically Relevant Documents | Investigate the Nature of Relevance among SEP-TDoc, TDoc-TDoc, SEP-TS and SEP-Section Relations | Wi-Fi Standards Search (including Wi-Fi 6, Wi-Fi 6E and Wi-Fi 7) | All 802.11 WGs (ARC SC, Coex SC, ITU AHG, JTC 802 SC, PAR SC, T Gaz etc). Revision Tracking | Cross Check between IEEE 802.11 DCN Documents and 3GPP T Docs | All WGs (WG1-Architecture, WG2-Intelligence, --- WG10-OAM, as well as TRG-Integration and SRG-Security Groups) | Cross Check O-RAN Alliance Specifications with 3GPP TR/TS Specifications, Interfaces and Vocabulary of Re-Programmability | ITU-T H.263, H.264, H.265, H.266 Standardization Document Search | Cross Check JCT-VC 3GPP-SA4 (Broadband Codec), and AV1 Standards |
| Corporate Functional Role  | Global Patent Registry (WO, US, EP, FR, DE, GB, CN, JP, KR, TW, IN, AU, etc) | Declared Patents & Declaration History Look-up and Subject Matter Comparisons | Undeclared Patents and TS-Relevance Search | SEP-TS-Version-Section Association | Standard Essentiality Ranking & Landscaping | All Technical Specification Groups (TSG) & Working Groups (WG) | Standardization Historic Construction & TSG/WG Cross Reference | Standardization Decision Making and Bifurcation Tracking (Understand How Key Decisions were Negotiated and Handled) | Change Request (CR) Genealogy Tracking & Version/Revision Visualization | TDoc / Work Item (WI) / TS Due Diligence | Standard Essentiality Search by Release, TS, Version, Section Clause, and Page No | SEP Discovery, Validation and Verification | Relevant Illustrative Specific Part of the Standard (Section Clauses) Candidacy Search & Ranking | TS Section Clause to Another TS Section Clause Technical Reference | Patent, TS, TDoc, Section Relational Network Visualization | See the Vicinity of Focal Patents and Other Critically Relevant Documents | Investigate the Nature of Relevance among SEP-TDoc, TDoc-TDoc, SEP-TS and SEP-Section Relations | Wi-Fi Standards Search (including Wi-Fi 6, Wi-Fi 6E and Wi-Fi 7) | All 802.11 WGs (ARC SC, Coex SC, ITU AHG, JTC 802 SC, PAR SC, T Gaz etc). Revision Tracking | Cross Check between IEEE 802.11 DCN Documents and 3GPP T Docs | All WGs (WG1-Architecture, WG2-Intelligence, --- WG10-OAM, as well as TRG-Integration and SRG-Security Groups) | Cross Check O-RAN Alliance Specifications with 3GPP TR/TS Specifications, Interfaces and Vocabulary of Re-Programmability | ITU-T H.263, H.264, H.265, H.266 Standardization Document Search | Cross Check JCT-VC 3GPP-SA4 (Broadband Codec), and AV1 Standards |
| <b>Research &amp; Development (R&amp;D) and Innovation</b>                                     |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   |  |  |
| Chief Technology Officer (CTO)   | X  |   |  |                                    | X   | X  |  |   | X   |  | X   |  |  | X  |  | X   | X   | X  |   |   | X  |   |  |  |
| Divisional R&D Director  | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| Scientist, Engineer, Inventor  | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| State of the Art Search  | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| <b>Standardization &amp; Eco-system</b>  |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   |  |  |
| Director   | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| Company Delegate   | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| Back Office Analyst  | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| Primary Negotiator   |  |   |  |                                    |   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| <b>Intellectual Property Rights (IPRs), Legal, Patenting, Asset Class and Quality Control</b>  |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   |  |  |
| Chief IP Officer (CIPO)  | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   |  |  |
| Portfolio Manager  | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| Prior Art Search   | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| SEP Claim Drafting & Amendment   | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| SEP Expedited Filing Justification   | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| SEP In-Licensing   | X  | X   | X  | X                                  | X   |  |  |   |   |  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| SEP Out-Licensing  | X  | X   | X  | X                                  | X   |  |  |   |   |  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| SEP Identification   |  |   |  |                                    |   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  |   |   |  |   |   |  |   |  |  |
| SEP Verification   |  |   |  |                                    |   |  |  |   |   |  | X   | X  | X  | X  | X  |   |   |  |   |   |  |   |  |  |
| SEP Selection  | X  | X   | X  | X                                  | X   |  |  |   |   |  | X   | X  | X  | X  | X  |   |   |  |   |   |  |   |  |  |
| SEP Assertion  | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| F/RAND Rate Determination  | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  | X   | X  | X  | X  | X  | X   | X   | X  | X   | X   | X  | X   | X  | X  |
| <b>Coordination, Certification, Production &amp; Manufacturing</b>                             |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   |  |  |
| Product Specification  |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| Standard Compliance  |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   | X  | X  |
| Vendor Relation  |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   | X  | X  |
| Supply Chain Management  |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   | X  | X  |
| <b>Strategic Investment / IP Acquisition and Offloading / Merger and Acquisition (M&amp;A)</b> |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   |  |  |
| IP Risk Exposure Analysis  | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| IP Valuation   | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| IP Acquisition   | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| IP Offloading / Pruning  | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| IP Financing / Lending   | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| IP Insurance   | X  | X   | X  | X                                  | X   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| <b>Government Relation, Policy and Regulation</b>  |  |   |  |                                    |   |  |  |   |   |  |   |  |  |  |  |   |   |  |   |   |  |   |  |  |
| Antitrust Evidence Analysis  | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| National Standardization Monitoring  |  |   |  |                                    |   | X  | X  | X   | X   | X  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| National Security Analysis   |  |   |  |                                    |   | X  | X  | X   | X   | X  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| Science & Tech Reliance Analysis   | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |
| Geopolitical Risk Analysis   | X  | X   | X  | X                                  | X   | X  | X  | X   | X   | X  |   |  |  |  |  |   |   |  |   |   |  | X   |  | X  |

**References**

- 1. [www.apexstandards.com/apex.etsi.sep.pdf](http://www.apexstandards.com/apex.etsi.sep.pdf)
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