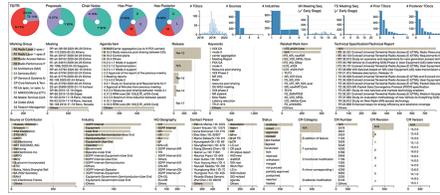


The next generation 5G technology (and imminent 5G+/6G) advance rapidly. Into more than twenty years of 3GPP, there has not been a system that supports efficient tracking and analysis for TDocs. In fact, the way professionals handled TDocs remained similar to that in the 2G—via the spreadsheets since the early 2000s, therefore occupying many brightest minds of the telecom industry at mechanical data crunching, miscommunication and frustration.

literally in one second, allowing to develop insights more quickly and effectively.



A standardization manager: my CTO had been very supportive by allocating a sizable budget for me to run an IT team to work alongside my delegates. It turned out buggy. It solved ad hoc problems but remained insufficient when systematic analysis is needed. For example, I was once requesting historical construction for "ATSSS", a Work Item regarding 5G Architecture, in order to get an idea about where it was heading, inter-vendor issues and relevant topics etc. ATSSS touches every WG across SA and CT so I had to task multiple teams in order to be certain the picture was complete. These meetings were never ending, with internal tools generating inconsistent results not even remotely close to my flashback. We squandered three weeks and ended up doing manual eyeballing across numerous Excel and Word files, at cost of hundreds of hours aggregated. Yet, we only reached a landscape limited to the scope of the team. Apex Standards would have made our life easier. It would have accomplished the above much better and faster. **Since using Apex, we have freed up a tremendous amount of time, resources, and gained greater control over our work process. It feels reassuring to always stay on top of things.**

“Apex Standards TDoc Analysis Platform enables you to focus on the technical contributions which will lead to the next 3GPP Technical Specification.”

“If you value time, insight and influence, contact us and let us show you how Apex Standards will advance you to the next level.”

Support your daily work: from questions to full range of analysis with flexible, intuitive search tools designed for the way standardization delegates and IPR professionals work—by entering keywords, dynamically filtering by TS/TR, Work Item, source, status, category, or by focusing keywords on Agenda Item, Chairman Notes, Text Proposals or CR reason, summary or consequences...

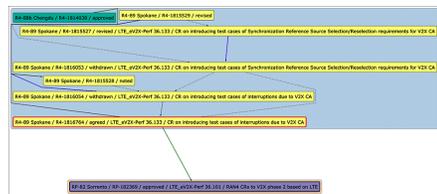
Client Success Stories

A senior delegate: in the winter of 2018 when a Plenary was held at a picturesque Italian coastal town, Sorrento, I witnessed the 20th year anniversary reception and realized having spent a long time in this field where, I would have loved to think, I knew almost anything! Oh well, experience sounded useful, until it wasn't. Sure enough, it enabled me to navigate some discussions. It probably earned me some respect. In fact, 3GPP is consensus-based so respect is a tricky thing. What really bothered me the most was: there were countless times when a familiar topic rang a bell, I had to sadly let go because my memory was too vague to recall substantive details. Alas, I hoped it was not an age problem. At best, I would remember roughly X years ago, company Y proposed a method seemingly having a keyword Z that sparked off a big debate and now, somebody just submitted something eerily similar, how would I find out? Heck, I surely knew how topics connect, but I did not have a crystal ball to tell me if my epiphany was right, or even better, can be validated by data. Apex Standards came in handy. It is modern, simple and intuitive to use. It quickly renders a high-level view into overall statistics for what I was looking for, and then allowed me to flexibly filter and drill down to any interesting TDoc. I no longer had to wrestle with TDoc sorting and searching myself. I came to understand that, it was hard to see a bigger picture because we experts were trained to be good at a small number of things, which inevitably meant a narrower focus. Apex widened my vision! It gave me peace in mind by knowing I was on the right track and I had no blind spot. More importantly, second order benefits started to emerge: I could deliver higher quality, fact-based arguments and counterarguments; I could communicate with my colleagues with greater clarity; I could negotiate for the best interest of my company with more credibility. More eureka moments enjoyed! The more I used it, the more I realized how underutilized TDoc data was in the past due to lack of good tooling. For me, Apex has become a must-have from a nice-to-have.

Wide Range of Search Criteria to Support Deep Analysis from Preferred Angles

3GPP TDoc No. Search, Return Entry Generation/Revision History Based on the TDoc, e.g., R2-100000	
3GPP Working Group, e.g., RP, SG, CI	Release
Meeting, e.g., R1-09, R1-09-37766, CP-05, 02-139 or by venue: China, Paris, Singapore, Prague, Lisbon	Keywords anywhere in TDoc
TDoc Contributor or Containee, e.g., 3GPP, 3GPP-1 or 3GPP-2	Keywords in TDoc Title
Source Industry/Operator, User-Req, Equipment, Standards/3GPP, Testing, Defense, Auto, Government	Keywords in TDoc Abstract
Source Headquarters Geographic: EU, US, CN, JP, KR, TW, CA, AU, IN, etc.	Keywords in TDoc Agenda Item or Description, e.g., 6.4.5.2
Contact person	Keywords in TDoc Text Proposal
Work Item	Keywords in Chairman Notes Corresponding to a TDoc
TS/TR, e.g., 36.301, TS packet TS title containing keyword, TR: TDocs related to TR only	Keywords in CR/Revision
TDoc Type: CR, Discussion, PCR, LS, Ls, Ls out, draftCR, CR Pack, Report, RHD Note, draft TR/TS, Other	Keywords in CR/Summary
TDoc Purpose/For (Decision, Approval, Agreement, Discussion, Info, Endorsement, Action, Presentation)	Keywords in CR/Consequence if not Changed
TDoc Decision (Approved, Rejected, Withdrawn, Rescinded, Rejected, Not Addressed, ...)	CR Category (A, B, C, D, P)
TDoc Status (Drafted, Noted, Approved, Prepared, Endorsed, Merged, Not Tracked, Rejected)	CR Number (RCS assigned by MCC)
TDoc Stage Date (YYYYMMDD)	CR Reason, e.g., 0, Original, 1, Prior Revision, etc.
TDoc End Date (YYYYMMDD)	CR Version, e.g., 17.0.1

TDoc subject matter and relations: zoom in and know what proposals have been followed in whole or in part; identify source of confusion, disagreements or splits of opinions; track important negotiation details, reasoning and thinking processes behind strategic positions or interests companies take.



A recent graduate and a junior delegate: 3GPP follow-ups are intensive and fast paced. I easily spent 100+ hours a week just to keep my head above water, letting along needing to fit into the unique culture of 3GPP. Worse, I found myself always in crosschecking mode because I did not have background information especially when related decisions were made years before I entered 3GPP. My handling about TDocs was slow. One day, the last meeting ended at 11pm. When I finally walked out, my manager texted me to meet for another urgent CR drafting the next morning at 7am, leaving me little time to grab food and catch up my breath. In order not to fall behind, I spent all night reviewing and preparing—that night was unduly wasted at lots of copy/paste, putting together relevant details by going back-and-forth through a long list of TDocs. That made me start to doubt my career. I loved innovation. I actually thought I would do more intellectual work. I kept struggling until a college friend ran my queries past Apex Standards for me. Wow! Exactly what I was hoping to see, except this time the results were generated fully automatically! But hmm, ok, it looked powerful, but I was hesitant to bring it up and ask my manager for a budget because I might only use marginal functions as a junior delegate. Today, in retrospect, it proved to be a right call. It gave me and my fellow colleagues structured insights faster so I can engage a constructive conversation sooner. It had allowed me to become better organized, respond faster and more profoundly to on-site TDocs creation. Owing to improved engagement, I started to gain recognition as professional among my colleagues and other delegates. Interacting fast and well informed won me attention and opened up doors. It has been great to be up to date and ahead with the Apex tool.

A complete picture: quickly turn information into insights and insights into action with features that help you visualize your search results and check a variety of dimensions in your fingertips, e.g., when returned a portfolio of TDocs, shortlisting by Company X at TR Y with status Z simply takes three clicks,

A top innovator: having attended 3GPP meetings for about a decade, I enjoy mingling with people and generating new ideas, during which, I used to spend a lot of time digging into TDocs being prior art. When it comes to patent filing, relevant TDoc, TS, TR and State-of-the-Art information need to be incorporated into an Information Disclosure Statement (IDS), which, to some extent will set the course for the next 2-3 years of examination process. If I were to use Apex Standards earlier, I would have been able to differentiate new IP from prior art more efficiently and effectively. Creating standard related IP is part of my job and key for the success of my company, our standards team, and last but not least, my annual bonus!

“Innovation ignites along the blurry line between something I think I knew and something I knew it might work. Apex Standards is designed to clarify that for you, thus enabling you to enable the future.”