



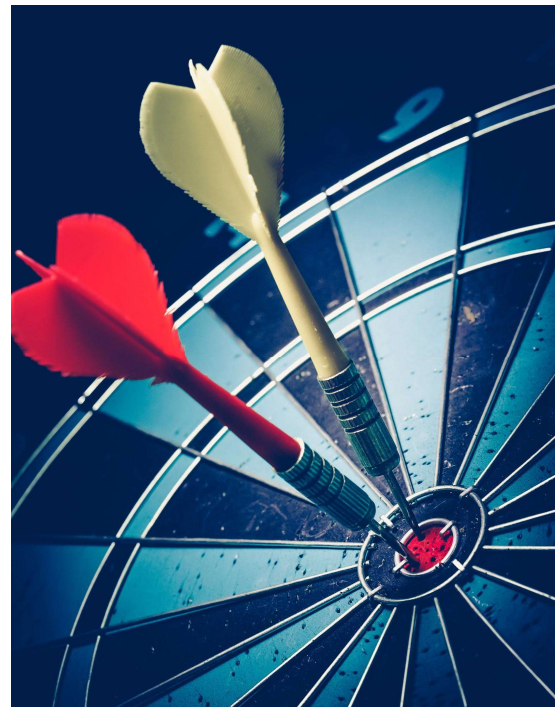
www.twenty5.com

Integrated Proposal Pricing & Estimating

Twenty5's Integrated Platform for Proposal Pricing & Estimating (iPE) offers professional services firms running SAP® an intelligent bid management solution taking them to the next level. Our solution enables an end-to-end business process together with SAP, MS-Project, Salesforce, Excel, and other apps you use for costing and pricing.

Key Benefits

- ✓ **Create contract and project baseline** automatically in SAP when you win a proposal
- ✓ **Enables an integrated end-to-end process** from opportunity to bid/proposal to executable project
- ✓ Get **proposals out the door faster** and with less effort leveraging best practices, re-use and workflow
- ✓ **Single source of truth** for all your company's bids, including versions and what-if analysis
- ✓ **Multiple pricing strategies** including time & materials (T&M), cost plus, and fixed fee. Separate billing and revenue recognition schedules
- ✓ **Manage global bids and a global organization** with full support for multi-business unit, multi-currency, local rate cards, intercompany rates, etc.
- ✓ **Bid with confidence** based on more insightful cost estimates, including risk-adjusted cost and margin
- ✓ **Powerful estimating algorithms** such as performance history, factors, parametric estimates, and predictive analysis
- ✓ Flexible management of **cost and billing rates**



- ✓ **Configurable pricing strategies** including time & materials (T&M), cost plus, and fixed fee. Separate billing and revenue recognition schedules
- ✓ **Analysis and reports** to review and get approvals/signoff for any bid
- ✓ Support bids for Govt. work with **requirements traceability**. Meet U.S. Dept. of Defense DFARS 252.215-7002, Truth in Negotiations Act (TINA) and Small Business Administration (SBA) offsets
- ✓ **Leverage investments in your current IT solutions and platforms** such as SAP ECC or S/4®, Primavera P6®, and Salesforce® with our best-in-class web platform built on SAP HANA®.

Key Features

Twenty5's Integrated Platform for Proposal Pricing & Estimating (**iPE**) addresses your proposal cost estimating and bidding processes with a modern, intuitive and responsive web application. The solution offers integration with other key business systems, to ensure an integrated end-to-end business process from opportunity to a won project. [Figure 1 iPE and integration with other systems](#) shows the high-level picture of how those systems interact.

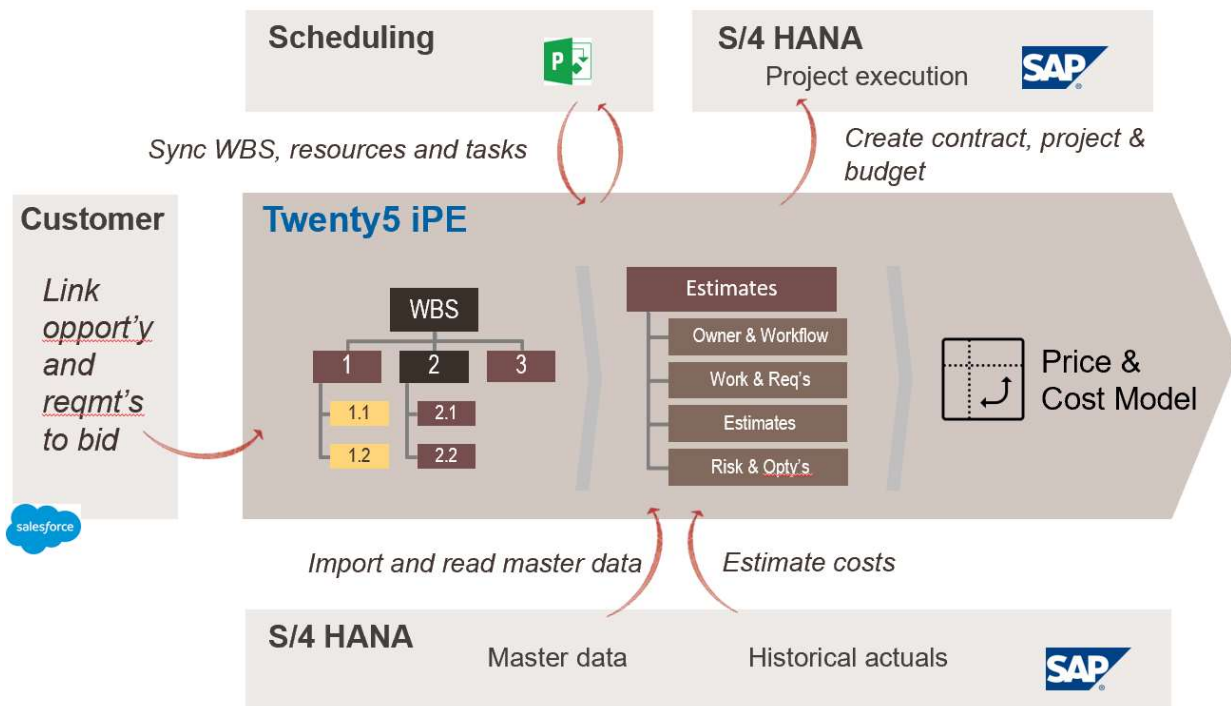


Figure 1 iPE and integration with other systems

Below is a list of key features that can help transform your business.

- Develop and use a **best practice template library** for the type of projects that you deliver frequently, this ensure consistency and accelerates data input. A best practice template can include a standard WBS structure, sales items, risk register, resources, rates, estimating strategies, etc.
- In addition to best practices, **prior proposals** can be the starting point for a new proposal. It is even possible to combine templates and proposals as building blocks for your new proposal.

- Set Price-to-win and Design-to-Cost targets to ensure strong **top-down** and **bottom-up** alignment of projected costs from the outset
- Trace **requirements** from your estimates back to the customer's RFX to ensure estimates are performed against the requirements
- **Estimating workflow** with status tracking and connected to your email system, ensures timely completion of bids against your customers RFX timeline
- Support a range of different types of estimates:
 - **Professional services estimates** based on performance history, parametric estimates, MS-Project schedules, previous estimates and cost estimating relationships (CERs)
 - **Subcontractor estimates** based on purchase order history, vendor quotes or resource-based (bottom up) estimating
 - **Travel estimates** based on trip templates or by applying a factor e.g. to onsite labor
 - **Other costs** such as financial costs, sales costs, or formula-based shipping costs and **indirect costs** to provide visibility of both direct and fully burdened costs at every level. Indirect cost rates can mirror SAP's costing sheets and overhead pools
 - **Revenue profiling** based on cash-flows (billing milestones), accruals, milestones/deliverables, leasing or hardware shipments, equivalent T&M revenue, incurred expenses, or forecast percentage of completion (contract value x planned cost / total cost)
 - Flexible **estimating relationships (CERs) and sizing metrics** using formulae to establish any type of parametric estimate including predictive analysis of prior historical performance
 - Plan resources on a **weekly or monthly basis** using an Excel-like spreadsheet interface – allowing input based on days, hours or full-time equivalents – or based on predefined curves which distribute total effort over a timeline. Consider resource or organization-specific work and holiday schedules
- Tagging enables **classification of cost based on any characteristic** which can be used for reporting, cost estimating relationships, indirect cost calculation and parametric formula
- Capture and assess **risk and opportunities**, rolling up into the proposal to help calculate risk-adjusted cost and revenue profiles at different confidence levels
- Manage **cost, billing and intercompany rates**
 - Maintain unlimited number of **standard rate books** for cost, billing and intercompany rates, e.g. by country, by business unit, by customer, etc.
 - Each rate can be maintained **by role, role/business unit** or **role/individual resource**
 - Ability to maintain **proposal-specific rates**
 - Ability to **sync SAP rates** with iPE rate books
 - Ability to create project-specific billing rates (pricing conditions) in SAP for billing purposes
- The **single source of truth cost & revenue model** can be sliced and diced to break down your cost and/or revenue by almost any dimension including proposal line item, work-package (WBS), business unit or location (OBS), and cost elements or P&L (CBS); for example by cost element, cost type, WBS, resource, proposal line item, phase, time, currency, confidence, estimating strategy or small business administration code
- **Proposal versions** and what-ifs allow your team to evaluate and compare multiple scenarios such as volume price-breaks or client-driven program extension/support options

- Configurable pricing strategies including:
 - **Time & Material** pricing with multiple rate books
 - **Fixed Fee** pricing with discounts, taxes and fees, and performance milestones
 - **Cost-plus** pricing with various fees and incentives (e.g. for travel expenses)
 - **Proposal or customer-specific** adjustments and labor/indirect cost rates
 - Cost and price by **resource group or individual** in any currency, using standard rack rates, intercompany rates or special billing rates
- Use our pre-delivered reporting views and templates in PowerBI® or build your own reports using any data visualization tool compatible with SAP HANA® such as **SAP Analytics Cloud®** or Tableau®
- Create the **program management baseline** as well as sales orders, projects and the risk or mgt. reserve directly **in your SAP S/4** system, to measure actual performance against for won proposals

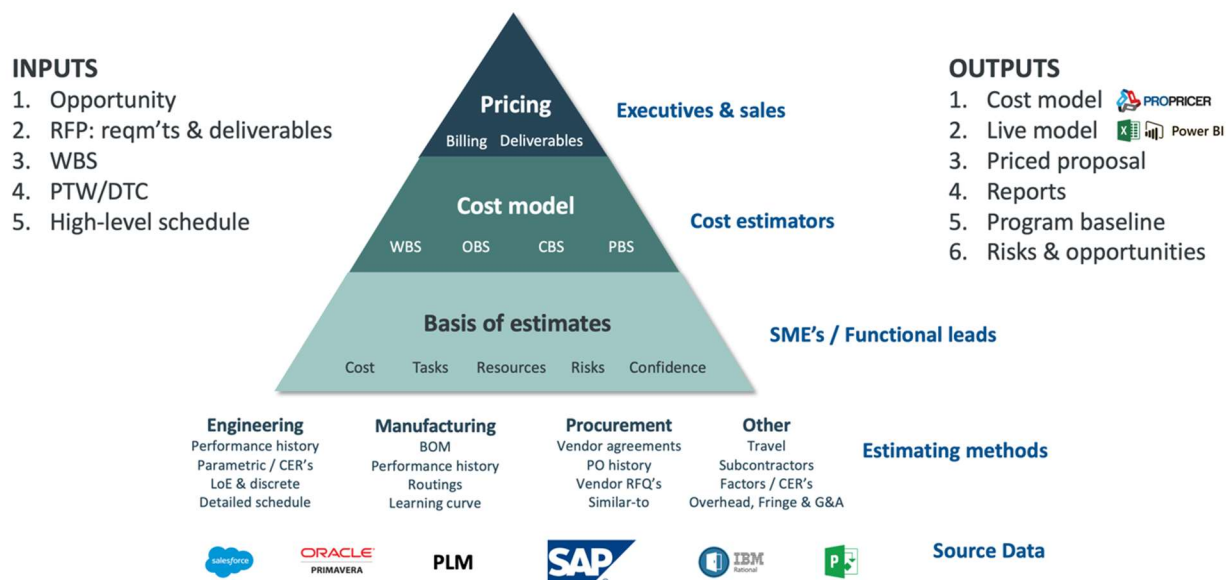


Figure 2 The iPE Pyramid - Inputs, outputs and source databases and systems to support cost estimating

iPE Solution Details

When your company receives an RFP, the clock starts ticking. In a few days, you need to be in a position to deliver a strong proposal, a bid that will help you win, but not at the expense of winning a deal that will deliver poor profitability. It is a balancing act - to win, but not to win at all cost, especially as more and more bids are moving from low-risk T&M contracts to higher-risk, fixed-price, outcome-based contracts. The risk of cost overruns is transferred to you, so bidding and estimating is becoming increasingly important. Both your growth and margins depend to a large degree on how good you are at this process, yet many companies still craft proposals based on tribal knowledge, with every bid manager "running the show" in their own way, leveraging their personal experience more than the collective experience of the company and the rich data that your company has available.

With Twenty5's solution, this critical business process can be optimized both in terms of efficiency and accuracy. The goal is to put yourself in a position to bid with confidence, bid with speed, and bid without causing major disruption to your business.

How to Bid with Confidence

First and foremost, if you want to submit your bid with confidence, you need to understand what it takes to deliver the project, the specific risks that can derail execution and to what degree of confidence can the project be delivered. To get there, you need to break-down the customer's requirements, and disseminate portions of your project to the right subject matter experts throughout your organization. You must also force the right conversations early and manage risk via a register of specific cost or revenue risks and opportunities. In this way you gradually replace tribal knowledge with reliable estimates, based on sizing metrics, performance history and cost estimating relationships.

Tip #1: Choose the right strategy for estimating

- ✓ Many times, all efforts are estimated based on an Excel spreadsheet with hours or FTE by period. Our solution supports this model, but this is far from the only way to estimate effort and cost for all of your proposals.
- ✓ Instead, depending on the type of work that is estimated, you need to leverage a different strategy. If it is a task has been performed many times in the past, then likely historic data is the best source of your estimate. Whereas, if this is the first time, then getting input from experts is probably the way to go. If there is a high degree of uncertainty, then you should document those uncertainties using risks, confidence and/or three-point estimating.
- ✓ There is also a time and a place for using cost estimating relationships and sizing metrics to estimate costs, for example quality assurance = 20% of software development costs.

Tip #2: Force the right conversations early

- ✓ Set the tone by defining Price-to-Win and Design-to-Cost targets. This is the outside-in perspective. Knowing this can ensure that you propose the “right” solution for the customer. If the customer is asking for a Fiat, don’t propose a Ferrari
- ✓ Understand detailed bottom-up inside-out estimates, based on the customer’s specific requirements and work involved, with experts throughout your company inputting intelligence over the web. Compare the new proposal to prior performance history, all in one database
- ✓ Collect input about confidence, best/worst case scenarios, and various risks and opportunities associated with the project, from the experts who are simultaneously estimating the effort
- ✓ Clearly highlight the differences between top down and bottom up analysis to force your team to get in a room and discuss why those differences exist and how they can be bridged.

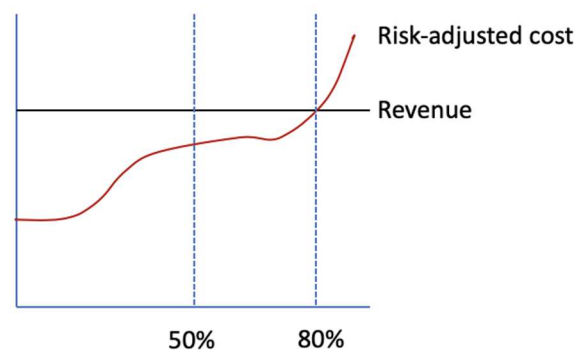
Tip #3: Understand confidence and risk

- ✓ Unlike accounting, estimates are never precise, so it is important to understand the degree of confidence you have in your various estimates. This spread of possible outcomes can be managed in a few different ways: a risk register; three-point estimating (best case, most likely and worst case); system proposed/user adjusted confidence scoring; independent assessments; and overall performance risk.
- ✓ Confidence is good, but having specific risks described and quantified is even more useful, as strategies can then be developed to avoid or at least mitigate the most critical risks.
- ✓ As an example, some identified risks can be mitigated or transferred to the customer by adding specific contract language. In addition, these risks contribute to the degree of confidence a company has in delivering the program within a budgeted cost.

Risk-adjusted Cost

When combined, executives will be able to calculate risk-adjusted revenue and risk-adjusted cost. Risk mitigation plan costs and post-mitigation risk impacts can also be taken into account

This means making pricing and investment decisions based on what is the probability that the project can deliver a certain margin. Such as, at a given price point you will deliver 20% margin with 50% confidence, and a 5% margin with 80% confidence. Each company will set its own policies, which we can refine and configure as part of the implementation of iPE.



Cost Estimating Relationships

Estimating repetitive work, such as the project management effort for an engineering program, or the quality assurance and testing component of a software project, can rely much more on cost estimating relationships or CERs. With a CER, rather than estimating for 1 project manager and 0.5 project admin you would, for example, estimate the project management hours as 12% of the engineering design hours. Taking this one step further you don’t have to plug-in the 12% factor, you can use predictive analytics of

your actual performance history to compare project management to engineering design hours across a range of prior similar programs, and have the system derive a more accurate % of hours relationship for you.

Sizing Metrics and Factors

Estimating based on sizing metrics allows you to plan for variances between the new vs. old proposal in a predetermined way. For example, you might have far more confidence in your estimate of the number of equivalent software lines of code (ESLOCs) as compared to your confidence in the lead software engineer's guess as to the number of developers and sprint cycles required. Estimating based on this kind of sizing metric allows you to focus your subject matter expert on what they know best, e.g. the number of ESLOCs, and then use a cost estimating factor, or predictive analysis based on SAP HANA®, to estimate the hours per ESLOC. In this way you can estimate a wide range of different projects, all with different levels of complexity or numbers of ESLOCs, while maintaining consistency in terms of the hours per ESLOC for each delivery organization, site or major subcontractor that you use throughout the globe.

Requirements/Capability Matrix - Confidence & Risk

System Requirement	Capability or Feature	Outcome
Top-down vs. bottom-up estimating	Tracking of price to win (PTW) by contract line with as well as design to cost (DTC) by WBS with automatic roll-up and comparison to bottom-up basis of estimates	Top down and bottom-up cost comparisons, with independent assessments
Calculate and track confidence	Confidence calculated by the system based on estimating methodology (level of effort, Primavera schedule, parametric, performance history etc.) as well as based on source documentation, e.g. age of historical purchase orders used for material estimates. Confidence rolls-up the WBS with an option for user adjustment	Confidence is calculated, rolled-up and tracked at each level of the WBS, to compare to target proposal confidence
Risk adjusted cost and risk adjusted revenue	Risk and opportunity register, covering both revenue opportunities and cost risks, with weighted impact calculation and confidence-based risk adjusted margin calculations	Risk register transfer to operational project. Risk adjusted cost and revenue calculations at various confidence %'s
Manual vs. automated distribution of effort over time	Select from a range of automatic effort distribution curves, or manually input effort in days, hours or FTE by week or month	Time-phased cashflow forecasts to avoid being "in the red" during delivery
Estimating based on performance history and cost estimating relationships	Copy and factor previous estimates, actual hours booked to prior similar projects, or build a library of formulae and relationships such as "10 hrs per ESLOC" or "QA is 25% of development"	More accurate estimates which are less reliant on "tribal knowledge" of the estimator

How to Drive Process Efficiency

When developing a new bid, starting from scratch is rarely the right thing to do. Instead, you should aim to re-use the knowledge that you have accumulated over the years. The goal is to build a virtuous cycle of continuous learning. That way your bids become better, your chance of winning grows, the amount of effort you spend producing a bid goes down. Companies are frequently applying this strategy for processes such as finance and procurement. However, the bid and proposal processes are typically immature.

Tip #1: Build a library of best practices and prior bids or projects

- ✓ When there is a type of project that you repeatedly deliver, it makes sense to take the extra steps of building a best practice template. This both helps your organization to drive standardization and it accelerates the process of putting together a bid. Best practice template can even be built as building blocks, where you combine 2 or 3 best practices as your starting point for you bid.
- ✓ When the project does not fit one of the best practice templates, maybe you performed a project or created a bid for something similar in the past. This also accelerates the process of creating your bid, and it allows you to learn from mistakes made in the past.

Tip #2: Collaborate using workflow

- ✓ Preparing a bid is typically done under time pressure and with involvement of several estimators and stakeholders. It is therefore essential that the bid manager receives inputs and approvals in a timely manner. With workflow and status, iPE helps keep the pursuit on track and highlights areas that need attention.
- ✓ Supplement this by creating an online collaboration “hub” for each proposal in your preferred corporate collaboration tool such as Slack, Teams or SAPJam.

Tip #3: Simplify the process using our SAP integration

- ✓ Finally, having a simple user experience with integration to other business systems makes it possible to run faster without impacting quality.
- ✓ iPE provides data validation for your inputs to minimize errors, makes it easy to both input and extract data, including the option to download and upload to/from Excel®
- ✓ Connect important master data such as roles, resources, rates and services delivered with your business management systems such as SAP.

Requirements/Capability Matrix – Process Efficiency

System Requirement	Capability or Feature	Outcome
Proposal response plan	Configurable workflow with email integration, lock-down and role-based notifications/approvals	Timely proposal response plan, tracking of actual vs. due dates
Re-use based on best practices and prior proposals	Create proposals based on library of templates, copy previous proposals, and build up the new proposal based on input from multiple previous projects	Avoids reinventing the wheel and build continuous learning

System Requirement	Capability or Feature	Outcome
Estimating based on SME input	Proposal WBS with annotations creating a workflow/estimate for each basis of estimate owner to complete online, with real-time cost model update	Estimates managed each by their respective experts with separate approval
Manage global proposals	Manage multi-currency and multi-business unit bids with resource/site specific rates, currencies, work-schedules, and calendars	Efficiently manage global bids across multiple currencies
Convert proposal to project	Automatically create a project and sales order in SAP ECC (SD/PS), S/4 HANA (CPM) or S/4 HANA Cloud Essentials from the proposal, with estimated cost and resources as a baseline	Automatically tie estimates to execution to ensure profitable project delivery

Architecture, Integration & Deployment

Our architecture, shown below, is a web-application accessible from any browser, connected to your SAP HANA® database and to either SAP ECC or S/4 system, to leverage your rich costing information - such as rates, resources, roles, pools, factors, currencies, price catalogs and single sign-on, as well as to create or update the sales order and project in SAP S/4 once the proposal has been won.

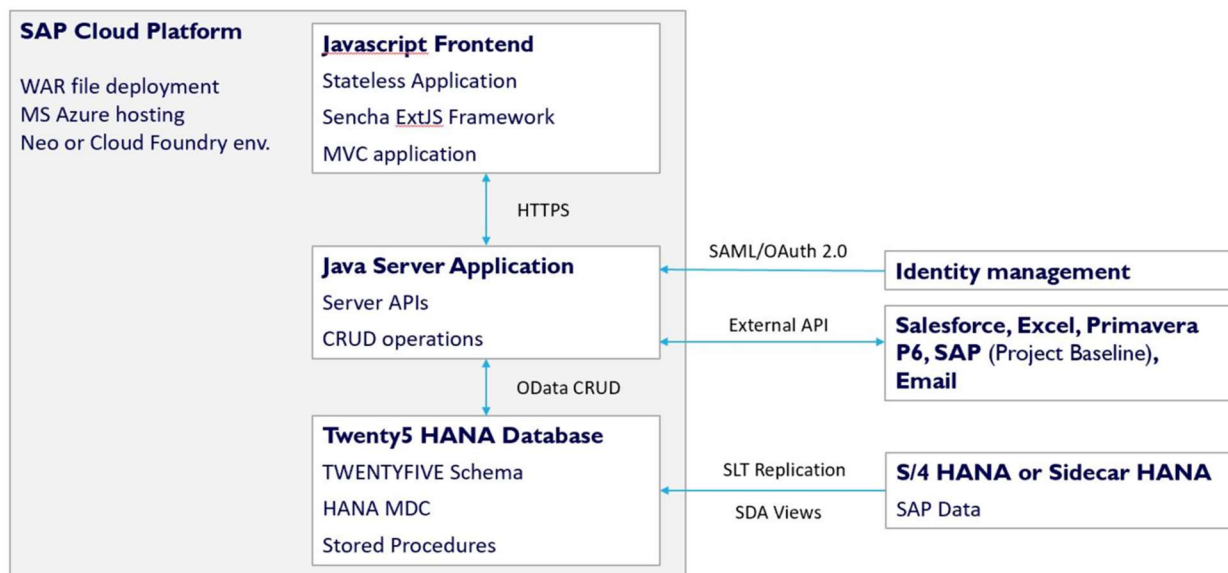


Figure 3 iPE Technical Architecture Diagram

Installing Twenty5's SAP HANA® add-on for project-based pricing and estimating (iPE) is easier than you'd think, since it does not involve "open heart surgery" or making changes to your core SAP configuration. You can deploy Twenty's solution in the cloud, or on-premise.

If you opt to install our application on premise and you are running on:

- SAP S/4 Cloud Essentials then we will connect our cloud-based application to your S/4 database to read your rates, resources, roles etc. directly from your SAP system and to update sales orders and projects in your S/4 HANA system when the proposal is won
- SAP S/4 HANA or Suite on HANA (SOH) then our application runs on your existing HANA® database. Install our Java application in SAP's Cloud Platform. We will connect our application directly to your SAP system using system landscape transformation (SLT) and smart data access (SDA)
- SAP ECC (SQL-DB) then an on-premise installation requires a HANA® sidecar with appropriate SAP HANA® licenses. This is something we can help your basis team with, in a few days.

During implementation we will:

- Discuss your requirements and current practices
- Help you to define policies, procedures and best practices
- Configure the software to suit your unique requirements, such as document numbering, working hours and holidays by site, PDF output formats and workflow steps
- Develop or help your team to develop reports in you preferred reporting tool such as SAC®
- Understand your SAP and non-SAP data, for migrating or real-time integration purposes
- Help you to identify power and basic users, with appropriate role-based access rights
- Help you to build role-based training and work instructions for each user group.

Requirements/Capability Matrix - Deployment

System Requirement	Capability or Feature	Outcome
Rapid Implementation	Add-on SCP and HANA® based application which can be deployed with first go-live in 4 to 9 months	Low-cost implementation equivalent to 1.5 - 2 years of subscription cost
Initial Trial or Prototype Option	Six-week assessment and prototype option, where we import your SAP data via Excel templates, and configure a proof of concept to work based on your company's unique needs, from the cloud. Add two more weeks for an on-premise prototype	Quickly evaluate our software with a fixed price (\$15k) hands-on proof of concept assessment
On-premise or Cloud	Both options are available, so for example you could deploy the Development and QA/test environment in the cloud and run production and training on-premise. SAP HANA® database or sidecar required for on-premise option	Flexibility depending on your unique requirements

About Twenty5

Twenty5 is an innovative software company which brings unique business value to project-centric businesses running SAP®, for example companies in the Aerospace & Defense, Professional Services, Engineering & Construction, High-Tech or Industrial Machinery & Equipment industry sectors.

Our founders each have 25+ years of experience in the enterprise software world, especially with SAP in Aerospace & Defense, as well as expertise in modern web technologies.

Given technological advancements such as in-memory databases, predictive analytics and artificial intelligence with SAP HANA®, Twenty5 believes there are unique opportunities to make business processes more agile and data-rich. Cost estimating benefits hugely from these advancements, which is one reason that we have focused on the bid and proposal management process.

In our experience, real innovation happens when working directly with customers in co-innovation. We have a culture of delivering with speed and high quality, typically at a fraction of the cost of the large enterprise software and consulting companies.



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