

ISO/IEC 26561:2019-11 (E)

Software and systems engineering - Methods and tools for product line technical probe

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and Definitions	1
4	Abbreviated terms	2
5	Reference model for product line technical probe	2
5.1	Overview	2
5.2	Reference model for product line technical probe	3
6	Product line technical probe management	6
6.1	General	6
6.2	Technical probe planning	6
6.2.1	Principal constituents	6
6.2.2	Establish technical probe goals	7
6.2.3	Define key procedures for technical probe	7
6.2.4	Formulate schedules and required resources for technical probe	7
6.2.5	Specify how to monitor, measure, and control the effectiveness of technical probe	8
6.2.6	Document the product line technical probe plan	8
6.3	Technical probe enabling	9
6.3.1	Principal constituents	9
6.3.2	Establish governance policy for technical probe	10
6.3.3	Mobilize qualified human resources for technical probe	10
6.3.4	Identify infrastructure and resource needs for technical probe operationalization and support	10
6.3.5	Enable quality assurance measurement for technical probe	11
6.3.6	Improve technical probe process continuously	11
6.4	Technical probe managing	12
6.4.1	Principal constituents	12
6.4.2	Tailor and allocate governance policy, R & R, and resources to relevant sub functions of technical probe	13
6.4.3	Collect data from SSPL technical probe sub functions	13
6.4.4	Monitor, measure, and control technical probe operation and support	13
6.4.5	Manage actual operation and support of technical probe	14
6.4.6	Provide feedback to planning and enabling functions of technical probe	14
7	Product line technical probe operationalization	15
7.1	General	15
7.2	Technical probe preparation	15
7.2.1	Principal constituents	15
7.2.2	Review and refine the context of technical probe	16
7.2.3	Specify the phases of technical probe	16
7.2.4	Identify the organization's SSPL stakeholders	17
7.2.5	Analyse the organization's level of process maturity	17
7.2.6	Distribute and gather preliminary phase questionnaire	18

7.2.7	Analyse and document preliminary phase findings	18
7.3	Technical probe operation	19
7.3.1	Principal constituents	19
7.3.2	Perform technical probe interview with organization's SSPL stakeholders	19
7.3.3	Capture relevant data from the interview	20
7.3.4	Document the findings, strengths and weaknesses	20
7.3.5	Assess gaps between to-be and as-is	20
7.3.6	Provide recommendations	20
7.4	Product line value estimation	21
7.4.1	Principal constituents	21
7.4.2	Determine potential member products	21
7.4.3	Measure potential reusability and opportunity	22
7.4.4	Analyse the costs and benefits of a product line	22
7.4.5	Perform go/no-go decision to a product line basis	23
7.4.6	Hand over product line value estimation results to scoping	23
7.5	Product line adoption scenarios structuring	23
7.5.1	Principal constituents	23
7.5.2	Coordinate the adoption strategy with the technical probe results	24
7.5.3	Structure product line adoption scenarios	24
7.5.4	Document a draft CONOPS	25
8	Product line technical probe support	25
8.1	General	25
8.2	Quality assurance for technical probe	25
8.2.1	Principal constituents	25
8.2.2	Objectively evaluate technical probe process	26
8.2.3	Objectively evaluate technical probe work products	27
8.2.4	Communicate and resolve noncompliance issues	27
8.2.5	Establish records of technical probe quality assurance activities	27
8.3	Decision support for technical probe	28
8.3.1	Principal constituents	28
8.3.2	Establish decision support policy for technical probe	29
8.3.3	Tailor decision procedure for technical probe	29
8.3.4	Guide the decision execution for technical probe	30
8.3.5	Document the rationale for decisions concerning technical probe	30
8.3.6	Learn from decision results of technical probe	31
8.4	Risk management for technical probe	31
8.4.1	Principal constituents	31
8.4.2	Identify risks related to the success of technical probe	32
8.4.3	Develop mitigation plans for the identified risks	33
8.4.4	Monitor the execution of the mitigation plan	33
8.4.5	Learn from actual results of risk management for technical probe	34
	Annex A (informative) Exemplar multi-criteria decision mechanism for technical probe	35
	Annex B (informative) Exemplar adoption scenario	37
	Annex C (informative) Exemplar frameworks of maturity and questionnaire	38
	Bibliography	39