Selecting the Correct TL 9000 Category

TIA QuEST Forum Webinar
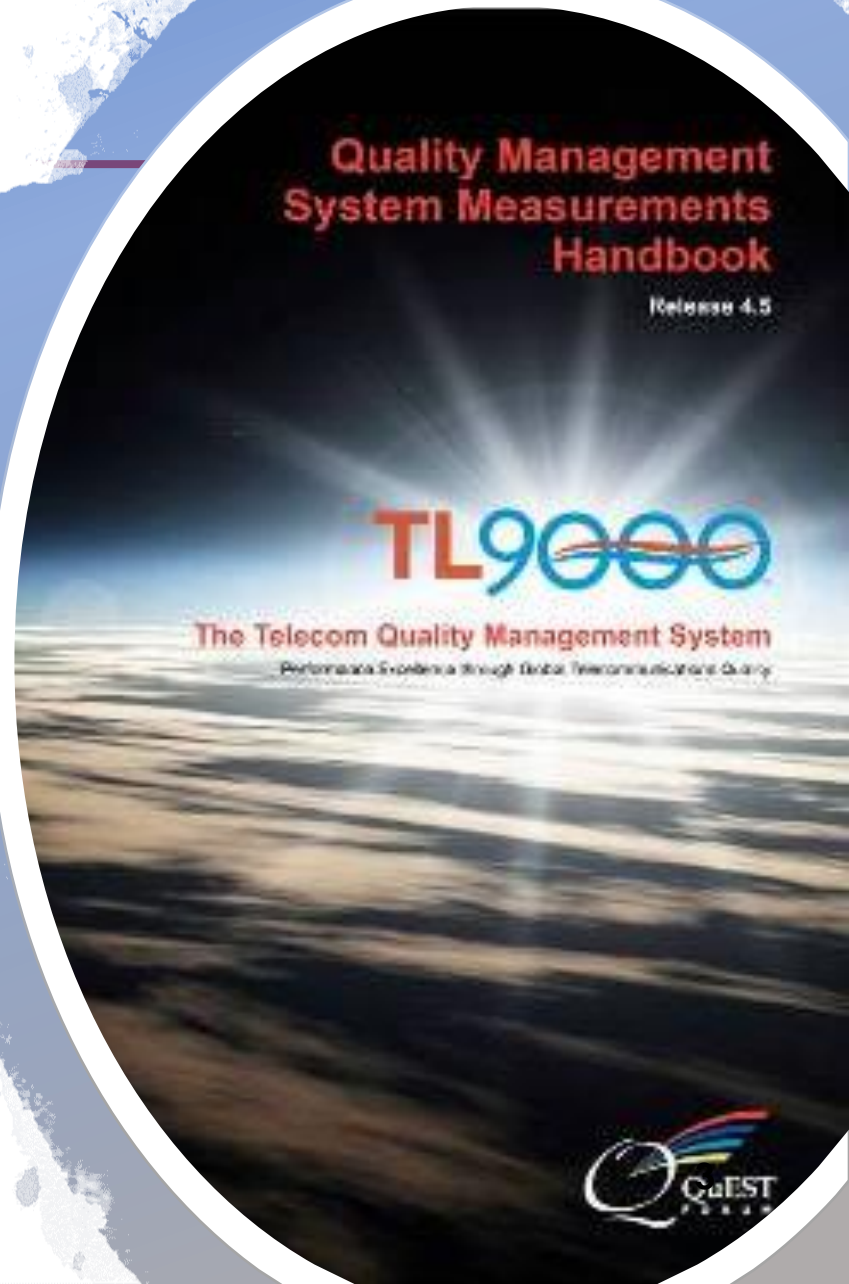## April 2022

Tom Yohe

Topics

- ➢ Workshop goal
- ➢ Responsibilities
- ➢ Quick start
- ➢ Families and Categories
- ➢ Scope of Certification
- ➢ Primary Function
- ➢ Summary

Goal of the Workshop

Understanding of how to correctly select and verify TL 9000 product and/or service categories

Importance

If an organization is in the wrong category:

- The industry data will not be useful to it
- The data for everyone in that category will be impacted
- There is a missed opportunity to have valuable data in the "right" category.

Obtaining comparable data requires reporting in the correct category

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Organization's Responsibilities

Identify categories within its Certification scope

Maintain those selections as its business changes

Certification Body's Responsibilities

Validating the organization's category selection

Approve added categories

Accreditation Body's Responsibilities

Verify the CB is effective in validating the organization's selection of categories

Certification Scope

- Identifies what is covered by your TL 9000 Certification
- Determines which products or services are to be reported on

Therefore –

Establishes which TL 9000 Categories apply

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Certification Scope

Your TL 9000 scope and your selected categories must match

- Can't have categories not mentioned in your scope

- Must have categories for all areas covered by your scope

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Quick Start - Selection

1. Examine scope statement
2. Understand product's or service's primary function
3. Compare function to category definitions
4. Select category

Quick Start - Verification

1. Do you have most of the data needed for the required measurements?

2. Do the measurements and normalization factors seem reasonable for your product or service?

3. Are your competitors registered in this category?

4. Does your executive management agree?

5. Does your Certification Body agree?

Basic Structure

Category	Description
1-6	HW/SW/Systems in the network
7	Support services
8	Components and sub-assemblies
9	End-customer services

Category Families

1. Switching
2. Signaling and Network Control
3. Transmission Systems
4. Operations & Maintenance
5. Common Systems
6. Customer Premise and Enhanced Services
7. Service Products
8. Components and Sub-assemblies
9. End-Customer Services
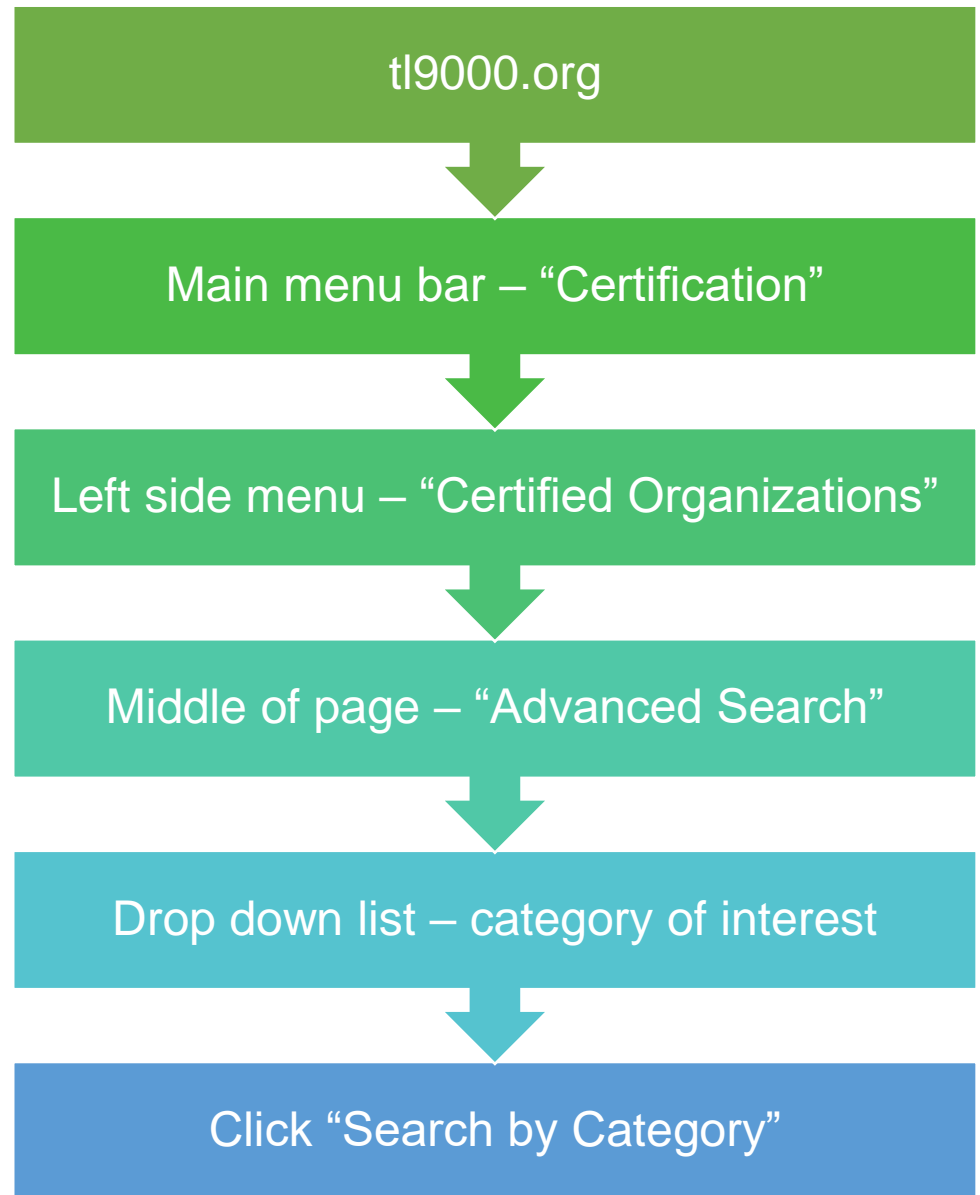
Category Families (1/2)

Family	Types or Sub-Families
1. Switching	Circuit switch, access multi-service, legacy packet, media gateways, application servers, SNC, and routers (core, edge, access)
2. Signaling and Network Control	SCP, STP, HLR, SL, Protocol Servers, Network Access Control, And Network Security
3. Transmission Systems	Outside Plant, Transport, Wireless, Ancillary Products
4. Operations & Maintenance	Test Systems and Operations Support Systems
5. Common Systems	Synchronization, General Purpose Computers, Power Systems, and Data Storage Systems

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Category Families (2/2)

Family	Types or Sub-Families
6. Customer Premise and Enhanced Services	Enhanced Services, Terminal Equipment, ACD, PBX, Key Telephone Systems, and Internet Security Devices
7. Service Products	Network Installation & Provisioning, Engineering, Maintenance, Purchasing, Manufacturing, Logistical, and Business, General Support, Consulting, and Customer Assistance
8. Components and Sub-assemblies	Hardware Components, Electronic Assemblies, Optical Fiber and Devices, and Software Components & Tools
9. End-Customer Services	Voice, Wireless, Transport, Private Networks, Internet Access, Bulk Transport, and Video Broadcast

Who is in what category?

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│                tl9000.org                   │
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┌─────────────────────────────────────────────┐
│      Main menu bar – "Certification"        │
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┌─────────────────────────────────────────────┐
│  Left side menu – "Certified Organizations" │
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│     Drop down list – category of interest   │
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│        Click "Search by Category"           │
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Search Result Example

TL ID	Certification Name	Company Name
TL 1531	CIENA Corporation	Ciena Corporation
TL 3463	Cisco Systems	Cisco Systems
TL 2207	Huawei Technologies Co., Ltd.	Huawei Technologies Co., Ltd.
TL 3428	Juniper Networks, Inc.	Juniper Networks, Inc.
TL 6109	New H3C Technologies Co., Ltd.	New H3C Technologies Co., Ltd.
TL 1193	Nokia Solutions and Networks	NOKIA
TL 3161	ZTE Corporation	ZTE Corporation

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Who is in what category?

Certification Profile

- Company name
- Scope of Certification (ISO & TL)
- CB (registrar)
- Categories
- Locations

Certification Scope

TL 9000 Scope and categories selected must align

Best place to start selection process

Should not list exact category numbers in the scope

Once selected, categories listed in another section of the profile

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Certification Scope – Example 1

HW & Software Systems Manufacturer

Design, Development, Manufacturing Operations and Support of Networking Solutions for the following product lines : DRS-1, x800, y800, z500, w7600, GGG 8800, GGG 8900, x0000, y0720, z2000, NMS x5310, NMS x5327, NMS x5454, NMS x5600, System Transport Manager, Solution Center (SC), Services Module (excluding other Line Cards) and including NMS Software and Port Adaptors. The Integration and Test Engineering group and the Technical Assistance Center (TAC) are included in their entirety.

Certification Scope – Example 1

Example #1 is a good example of a TL 9000 certification that is product specific. It would be likely that multiple categories would be selected for such a certification scope. Services such as "Technical Assistance Center" would likely fall into PC 7.5.1 "Technical Assistance and Customer Support Centers". While products like "DRS-1" would likely fall into a specific switch, signaling or transmission category such as 1.2.9.1.1 "Legacy Core Routers".

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Certification Scope – Example 2

Systems Networks Manufacturer

Design, development, provision and servicing of Core and Edge IP Routers, Firewall VPN devices running Systems Networks Security Operating System

The scope statement in Example #2 is much more general in nature and would require the company to collect and report measurements of all core or IP routers that they supplied that were still "generally available". That conceivably could be up to four different product categories; 1.2.9.1.1 or 1.2.9.2.1 "Legacy Core or Edge Routers", or 1.2.9.1.2 or 1.2.9.2.2 Virtualized Core or Edge Routers as well as another category for "Firewall VPN devices", which would most likely be category 6.6 "Internet Security Devices"

Certification Scope – Example 3

Installation Services

The provisioning and installation of central office equipment to specifications identified by telecommunications service providers.

The scope statement in Example #3 includes two different services. It would require the company to become certified in 7.1.1.1 Physical Installation and/or 7.1.1.2 Remote Installation along with 7.1.2 Provisioning

The Tables

- Table A-1   Product and Service Category Definitions

- Table A-2   Measurement Applicability Table (Normalization Units)

- Table A-3   Network Element Impact Outage

- Table A-4   Transmission Standard Designations and Conversions*

- Table A-5   Optical and Electrical Equivalency*

- Table A-6   Measurements Summary Listing*

- Table A-7   TL 9000 Data Submission Labels*

*not normally used for category selection

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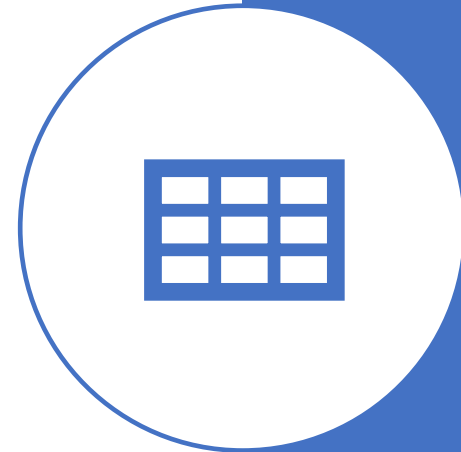
"Primary Function"

Bold text in definition indicates the primary function of the product

Complex product categories

Outage reporting is required

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"Primary Function" Example

Table A-1 Product and Service Category Definitions		
Category Code	Category Name	Definition
1.2.9.1.1	Legacy Core Routers	Core **routing** equipment consisting of proprietary hardware and software.
2.2	Signaling Controllers	Hardware/software **signaling** equipment with to support a variety of applications: • CCS Signal Transfer/Router (i.e. STP - MTP, SCCP) • CCS link terminations (i.e. end office, tandem office, wireless office, etc.) • CCS packet interconnect (MTP, IPS7) • Evolved Packet Core (EPC) signaling controllers
2.6	Network Access Control	Equipment used that **provides user authentication, authorization, and accounting (AAA) for network services**

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"Examples"

Far right-hand column in Table A-1

Specific names of product types:

- Circuit Switch: End-office, Tandem, Tandem access, Remote, MSC, SSP
- Core Routers: IP core router, Broadband multi-service, Transport protocol converters
- Network Security: IP Security (IPsec) Control server, Secure Socket Layer (SSL) Server, Transport Layer Security (TLS) Server, Tunnel Control
- Home Base Station: Home base station, Femtocell, Access point base station

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TL 9000 Measurements

Common Measurements

    Number of Problem Reports

    Problem Report Fix Response Time

    Overdue Problem Report Fix Responsiveness

    On-Time Delivery

Outage Measurements

    Service Impact Outage

    Network Element Impact Outage

    Support Service Caused Outage

    Mean Time to Restore

    Global Service Impact

Hardware Measurements

    Field Replaceable Unit Returns

    Basic Return Rate

Software Measurements

    Software Fix Quality

    Early Software Problem Reports

Services Measurements

    Service Quality

    End-Customer Complaint Report Rate

    Incident Response Rate

Tips

What does your web site, marketing material, or catalog say your product or service is?

What is it that your customer is purchasing from you?

Remember, if you are providing a service, the service determines the category i.e. if you are building circuit boards for another company your category is contract manufacturing. It is not the category of the item you are building.

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Customer vs. Category

Customer	Categories
Network Operator	1-6 or 7
OEM	8 if HW product 7 if service
End customer	9
Internal	7

Rules of Selection

The definitions of categories in Table A-1 shall be used by organizations in categorizing their products.

An organization shall not classify a product or service in multiple categories. Therefore, any product or service from an organization must be classified in exactly one product or service category.

All new category selections must be approved by TIA QuEST Forum before the category can be added to the organization's TL 9000 Certification public profile.

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Rules of Selection

General-purpose products, such as computers, shall be classified by specific function, e.g., signaling, when provided as a system designed for that function. Otherwise, they shall be classified in a separate category, for example, Common Systems-Computers, designed for the general-purpose product.

A product shall be classified according to its primary function. For example, a digital transmission facility product with performance monitoring will be classified as a transmission product instead of an operations and maintenance product.

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Rules of Selection (cont.)

The standard for classification is the product category, not the possible uses for the product. For example, if a product classification falls in the Outside Plant category, all products that are consistent with that category will be classified as such, even if the exact same product is sometimes used in the customer premises and even if a particular organization's product is sold primarily into the customer premises market.

Organizations choosing a category in Families 1 through 6 or Family 8 cannot exclude Clause 8.3 in the Requirements Handbook in its entirety. Organizations without responsibility for design and development should look to the service categories in Family 7 for the appropriate category.

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Approval Process

Step 1 – The organization adds the category to their private TL 9000 Certification profile

Step 2 – The system asks if it wants to start the approval process now or wait.

Step 3 – When TIA QuEST Forum approval is requested, a pop-up window appears requesting the following information:

1) Product or service description

2) Product name and/or model number (hardware/software products – Families 1-6 and 8)

3) Primary function (hardware/software products – Families 1-6 and 8)

4) Competitors products name or model numbers (hardware/software products– Families 1-6 and 8)

5) Link(s) to material on web

6) Attach brochure(s) – do not need certificate

Note: Item 1 is required in all cases. Either items 5 or 6 are also required in all cases. Items 2 and 3 are required for Families 1-6 and 8. Item 4 applies only to Families 1-6 and 8 and is optional. The pop-up will not close until all required information has been completed.

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Approval Process

Step 4 – Category Verification Sub-team notified

Step 5 – Sub-team determines if the information received is sufficient. If not, then request is sent to the organization by the TL 9000 Administrator for more information. If yes, then Step 6 takes place

Step 6 – The Sub-team verifies the category selection. If it is correct, then the approval is noted in the organization's private TL 9000 profile. If not, then the organization is notified by the TL 9000 Administrator.   The information provided to the organization will include a suggested appropriate product. If more than one might apply, then some guidance on how to choose the correct category shall also be provided by the Sub-team.

The approval process should be completed within 30 days of notification to the Sub-team. Delays in responding for requests for more information from the organization may extend this time.
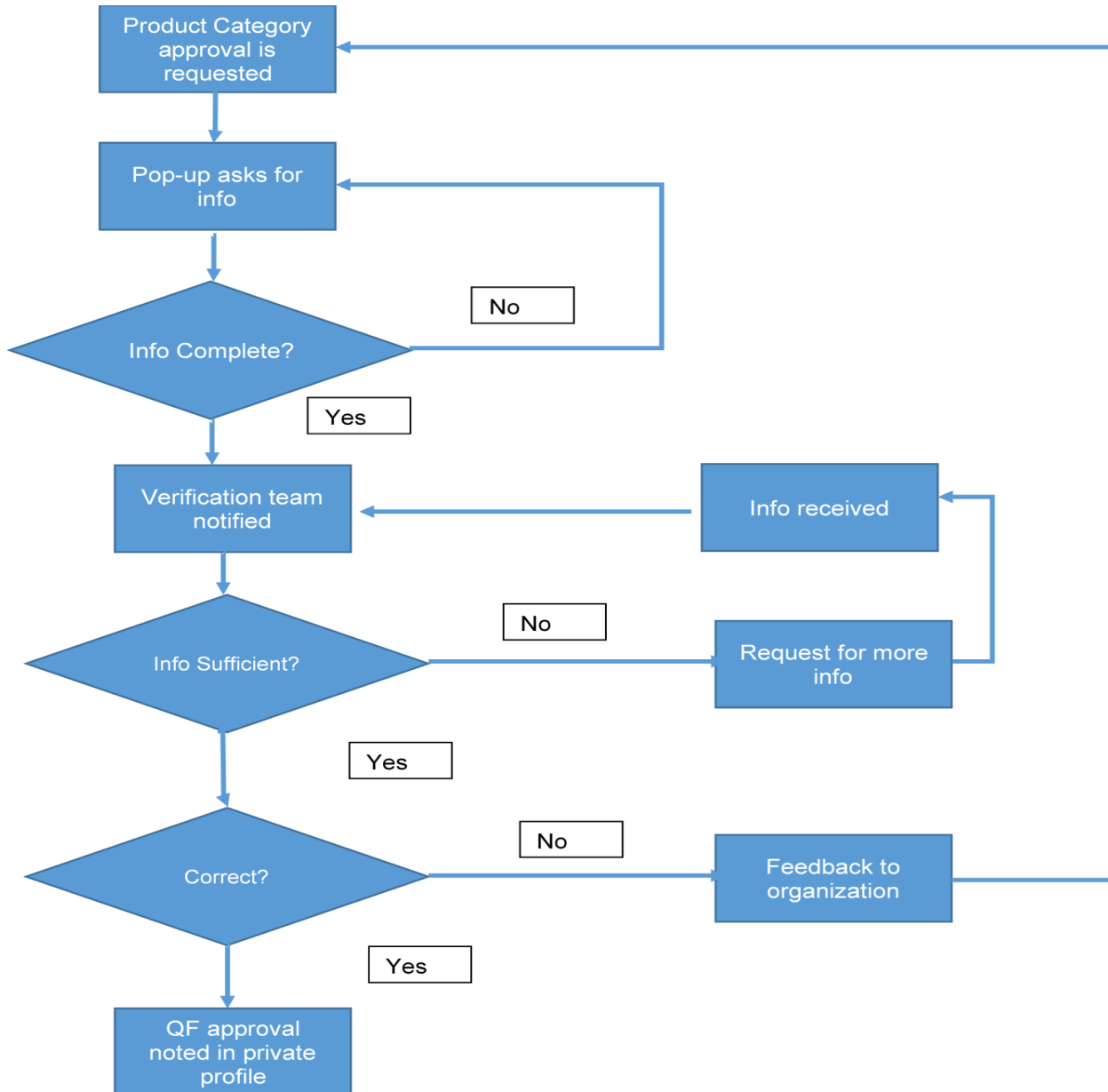
Summary

Correct category selection is critical

View from standpoint of customer

Use available resources to determine and verify

If in doubt - ask

Resources

http://tl9000.org/links.html

➤ Latest edition of tables

➤ Online help

➤ "Contact us" to submit questions

Category Selection Validation Guidelines

Forward to Table A-1

This presentation

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Contact Information

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Contact Us

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