

Guide to Internet Telephony System Certification in Indonesia

Certification in Indonesia

Certificate of approval is required for every telecommunication and ITE equipment entering Indonesian territory. The certificate of approval is issued by Directorate General of Resources and Equipment Standardization for Post and Informatics (SDPPI). Certifications are granted at the system (host) level. The certificate is valid for each type or model number of equipment while product or model series certificate or type approval is not acceptable.

In-Country Testing

In-Country testing is required prior to certificate issuance by SDPPI. RF / Telecom Test is mandatory while EMC and safety is voluntary. The test will require 2 (two) samples of equipment and it will be conducted by local laboratories which appointed by SDPPI.

Applicable Standards in Indonesia

Approval test will be based on national standard: KEPDIRJEN No. 113/DIRJEN/2008. The national standard is regulating Gateway and Gatekeeper in Internet Telephony System. The key parameters are as follow:

- TECHNICAL REQUIREMENTS

Interface	Shall be connected to PSTN at least through 1 interface i.e. E1 (ITU-T Rec. G.703), FXO
	Shall be connected to IP network through interfaces: Ethernet (10 mbps minimum) and/or WiFi IEEE 802.11b/g/n and/or Wimax IEEE 802.16d/e
Signalling	Shall be able to retrieve signaling based on H.323, SIP, MGCP, IAX, R2MFC or SS7
Speech Codec Characteristic	Comply with G.711, G.729, G.723 and G.726
Gateway Voice Processing Delay Time	Not to exceed the reference either in encoder/decoder (0-150 ms)
Gateway IP addressing	Shall be able to support IPv4 addressing or beyond
Media Channel Address Resolution Function	Shall be able to support PSTN numbering system (ITU-T E.164)
Stream Conditioning Function	Shall be equipped with ability to inter-media stream transfer within IP domain and PSTN domain (including transcoding and echo cancellation)

RTCP Function	Shall be equipped with ability to transmit and receive voice signaling through RTP and controlling RTP by using RTP messaging (comply with IETF RFC)
Authentication Function	Gatekeeper shall be equipped with ability to identify user, device or network
Gateway Media System Admission Control Function	Shall be able to control admission media streaming

• INTEROPERABILITY REQUIREMENTS

Support	Gateway shall be able to support DTMF encode and decode. Gatekeeper shall be able to support multi vendor gatekeeper interoperability
	Gateway shall be able to support protocol fax (ITU-T Rec. T.38), UDP/IP, TCP/IP
Service Interoperability	Basic Services: <ul style="list-style-type: none"> - Shall be able to perform setup call from client in IP network to PSTN terminal and vice versa - Shall be able to perform forward and backward call clearing - Shall be able to perform call clearing whether in gateway or gatekeeper - Shall be able to transmit busy tone, alert tone, congestion tone
	Addressing/Routing: <ul style="list-style-type: none"> - Shall be able to perform call initiation in IP network using E.164 number to identify and calls PSTN subscriber - Shall be able to utilize static IP when connecting users in the same IP network - Shall be able to perform call initiation in PSTN network using E.164 number to identify and calls subscriber in IP network
	Security: <p>Gatekeeper shall be equipped with security mechanism based on ITU-T Rec. H.325 or any same level of standard</p>

• SERVICE CAPABILITY

Services	Shall be able to support services as follow: <ul style="list-style-type: none"> - Phone to phone application (VoIP, PSTN, FWT and Cellular) - PC to phone application and vice versa - Fax to fax application
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• FEATURES

Features	Shall be equipped with features as follow: <ul style="list-style-type: none"> - Dynamic routing - Silence suppression/Voice Activity Detection (VAD)
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	<ul style="list-style-type: none">- G.165/G.168 compliant echo cancellation- Jitter Buffer- DTMF detection and generation- Real Time G3 (ITU-T Rec. T.38) Fax- Auto Detection of voice or fax- RTP header compression
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Documentations Requirements

1. Completed Application Forms: Application Form (FR.PM.5), Inspection Form (FR.PM.4), Power of Attorney to *TEKNOKRAT* Indonesia
2. Technical Constructive File: General information, Installation guide, User manual, BOM, Hardware description, Block diagram, Assembly Top/Bottom, Conducted test report (RF / Telecom and EMC & Safety test)
3. Copy of Certificates of Compliance (from other country)

TEKNOKRAT's services have been specifically designed to support manufacturers, test laboratories and consultants seeking type approval in Indonesia for telecommunications equipment and other ITE. The world's leading telecommunications equipment vendors already recognize the value in our service and entrust their approvals in Indonesia to us. We would be delighted to have the opportunity to support your telecom approvals.

for further information please contact: customer@typeapproval.or.id