ANALYSIS AND EVALUATION OF THE Maturity Of E-GOVERNMENT FOR WEST JAVA REGIONAL DEVICES BASED ON SPBE (Case Study: Regional Library And Archives Service)

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Abstract

The SPBE Evaluation Guidelines Are Prepared To Provide Guidelines For The Evaluation Of The SPBE Implementation In Central And Regional Government Agencies. This Evaluation Guideline Regulates The Planning, Implementation, And Reporting Of SPBE Evaluation Results. The Scope Of SPBE Implementation In Central And Regional Government Agencies That Will Be Evaluated At Least Includes SPBE Governance, SPBE Services, And SPBE Policies.

About The SPBE, The Authors Analyze And Evaluate The Level Of Maturity At The Regional Library And Archives Service Which Is One Of The Regional Apparatuses In

West Java. Maturity Results Obtained Are Below 4 Which Is An Index That Is Still Far From Maturity, And The Results Of This Study Recommend Several Things To Increase The Level Of Maturity In DISPUSIPDA In Several Domains.

Keywords: SPBE, E-Government, West Java, Regional Library And Archives Service, Maturity.

Introduction

The Implementation Of The Electronic-Based Government System, Hereinafter Abbreviated As SPBE In Central And Regional Government Agencies, Aims To Create An Efficient, Effective, Transparent And Accountable Work Process As Well As To Improve The Quality Of Public Services. For The Implementation Of SPBE (Electronic-Based Government System/E-Government) To Achieve Its Objectives, It Is Necessary To Conduct Periodic Evaluations To Determine The Progress Of SPBE Implementation In Each Central Agency And Regional Government.

SPBE Evaluation Is The Process Of Evaluating The Implementation Of SPBE In Central And Regional Government Agencies To Produce An SPBE Index Value That Describes The Maturity Level Of SPBE Implementation In Central And Regional Government Agencies. For This Assessment To Be Carried Out Effectively And Objectively, It Is Necessary To Develop Evaluation Guidelines That Can Be Understood By All SPBE Evaluation Stakeholders.

The SPBE Evaluation Guidelines Are Prepared To Provide Guidelines For The Evaluation Of The SPBE Implementation In Central And Regional Government Agencies. This Evaluation Guideline Regulates The Planning, Implementation, And Reporting Of SPBE Evaluation Results. The Scope Of SPBE Implementation In Central, And Regional Government Agencies That Will Be Evaluated At Least Includes SPBE Governance, SPBE Services, And SPBE Policies[1, 2].

Through This Study, The Author Reports The Results Of His Research On The Evaluation Of SPBE In A West Java Provincial Government, A Case Study Of The Regional Library And Archives Service In West Java[3-6].

Literature Review

SPBE Maturity Level Concept
The Maturity Level Method In The SPBE Evaluation Was Developed Based On The Maturity Level Model That Has Been Widely Practiced, Namely:

1. CMM/CMMI (Capability Maturity Model/CMM Integration) Developed By The Software Engineering Institute (SEI) Is A Model That Measures The Maturity Level Of The Software Development Process (Pooja, 2016). This Model Is The Basis For The Development Of Various Other Maturity Models Such As The Maturity Level Of ICT Governance In COBIT (Control Objectives For Information Technology) [7, 8] ICT Architecture (Enterprise Architecture Maturity Model), Risk Management (Risk Maturity). Models) [9-12], And Knowledge Management. (Maturity Model for Knowledge Management).

2. E-Government Maturity Model Is A Maturity Level Model That Measures The Evolution Of SPBE From The Aspect Of Functionality And Technical Capabilities Developed By Many Parties, Including [13-15].

Rating

Assessment Of The Implementation Of SPBE Is Carried Out Through An Assessment Structure Consisting Of:

1. Domain, Is The Area Of SPBE Implementation That Is Assessed;
2. Aspects Are Certain Areas Of The SPBE Implementation That Are Assessed; And
3. Indicators Are Specific Information On Aspects Of The SPBE Implementation That Are Assessed [14-16].

A Domain Consists Of One Or More Aspects, And An Aspect Consists Of One Or More Indicators. Domains, Aspects, And Indicators Can Be Seen In Table 1 Below. The Selection Of Domains, Aspects, And Indicators Is Adjusted To The Conditions In The Field [7, 17, 18].

T a b l e   1

Domains, Aspects And Assessment Indicators (Menpan, two thousand eighteen)

Domain	SPBE Internal Policy
1. Aspect	SPBE Governance Internal Policy
Indicator	Internal Policy Of SPBE Steering Team For Government Agencies
Indicator	Internal Policy Integrated Business Process Innovation
Indicator	SPBE Master Plan Internal Policy For Government Agencies
Indicator	Internal Policy On ICT Budget And Expenditure
Indicator	Data Centre Operation Internal Policy
Indicator	Application System Integration Internal Policy
Indicator	Internal Policy For Common Shared Application Use
Aspect	SPBE Service Internal Policy
Indicator	Internal Policy Service Manuscript Service
Indicator	Internal Policies For Personnel Management Services
Indicator	Internal Policy Planning And Budgeting Management Services
Indicator	Financial Management Service Internal Policy
Indicator	Performance Management Service Internal Policy
Indicator	Procurement Service Internal Policy
Indicator	Public Complaint Service Internal Policy
Indicator	Legal Documentation And Information Services Internal Policy
Indicator	Whistle Blowing System Service Internal Policy
Indicator	Government Public Service Agency Internal Policy
Domain	SPBE Governance
Aspect	Institutional
18 Indicator	SPBE Steering Team For Government Agencies
19 Indicator	Integrated Business Process Innovation
Aspect	Strategy And Planning
20 . Indicator	SPBE Master Plan For Government Agencies
21 . Indicator	ICT Budget And Expenditure

Aspect	Information And Communication Technology
22 . Indicator	Data Center Operation
23 Indicator	Application System Integration
24 . Indicator	Common Application Uses Share
Domain	SPBE Service
Aspect	Electronic-Based Government Administration Services
25 . Indicator	Official Script Service
26 . Indicator	Personnel Management Service
27 . Indicator	Planning Management Services
28 . Indicator	Budgeting Management Services
29 . Indicator	Financial Management Services
30 . Indicator	Performance Management Service
31. Indicator	Procurement Service
Aspect	Electronic-Based Public Service
32 . Indicator	Community Complaint Service
33 Indicator	Legal Documentation And Information Services
34 Indicator	Whistle Blowing System Service
35 Indicator	Public Service Government Agencies

Maturity Level And Rating

1. Level 1 (One) Is Given A Value Of 1 (One).
2. Level 2 (Two) Is Given A Value Of 2 (Two).
3. Level 3 (Three) Is Given A Value Of 3 (Three).
4. Level 4 (Four) Is Given A Value Of 4 (Four).
5. Level 5 (Five) Is Given A Value Of 5 (Five).

Index Value

Index Values That Represent The Maturity Level Of SPBE Implementation Are Grouped By Predicate AsShown In Table 2.

Table 2

Index

No	Index Value	Scale Evaluation
1	4,2 – 5,0	Excellent
2	3,5 – < 4,2	Good
3	2,6 – < 3,5	Average
4	1,8 – < 2,6	Below Average
5	< 1,8	Poor

Table 2

Regional IT

Regional IT Maturity	1.72	
Domain	Index	Standard
Governance	1.25	3.00
Infrastructure	2.10	3.00
Application	2.01	3.00
Security	0.50	3.00

Research Methods

SPBE Maturity Level Concept

SPBE Evaluation Is Carried Out Through Self-Evaluation And External Evaluation. Methods Of Conducting Self-Evaluation And External Evaluation Can Use One Or A Combination Of The Following Methods:

1. Document Evaluation, Where the Evaluator Evaluates the Answers, Explanations And Supporting Evidence Provided By The Regional Library And Archives Service.

2. Interview, Where The Evaluator Asks And/Or Clarifies To The Regional Library And Archives Service About The Answers, Explanations And Supporting Evidence Provided By The Regional Library And Archives Service.
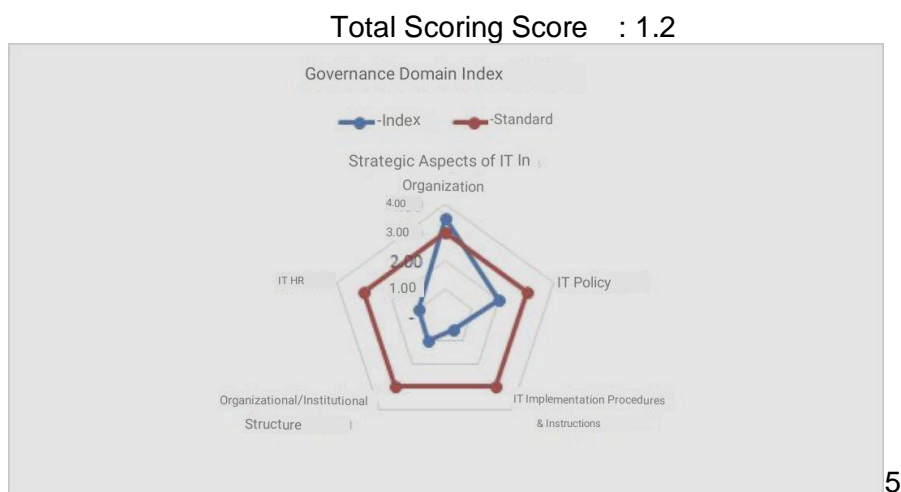
Results And Discussion

The Following Are The Results Of Observations And Questionnaires Obtained From The Regional Library And Archives Service For The Governance Domain Which Are Described In Table 3 And Figure 1 Below: *Table 3*

Domain Index Of Regional Library And Archives Service Administration

Governance Domain Index	1.25	
Sub Domain	Index	Standard
Strategic Aspects of IT in Organizations	3.50	3.00
IT Policy	2.00	3.00
IT Implementation Procedures & Instructions	0.50	3.00
Organizational/Institutional Structure	1.00	3.00
IT HR	1.00	3.00

Figure 1. Domain Index Of Regional Library And Archives Service Administration

Total Scoring Score : 1.2

5

Evaluation Scale : POOR

The Following Are The Results Of Observations And Questionnaires Obtained From Regional Library And Archives Service Administration For The Governance Subdomain Which Are Described In Table 4 And Figure 2 Below: *Table 4*

Governance Sub Domain Index

| Governance Sub Domain Index	1.25	
Indicator	Index	Standard
E-leadership/ leadership commitment to IT	3.00	3.00
IT priority in strategy	4.00	3.00
Master Plan Policy	3.00	3.00
ICT Budget Internal Policy	1.00	3.00
ICT Master Plan Document	1.00	3.00
ICT Budget and Expenditure	1.00	3.00
ICT Master Plan Implementation	-	3.00
Service Management/ IT Operations	-	3.00
IT Manager Organizational Structure	1.00	3.00
Availability of IT HR	2.00	3.00
Competency Development	-	3.00
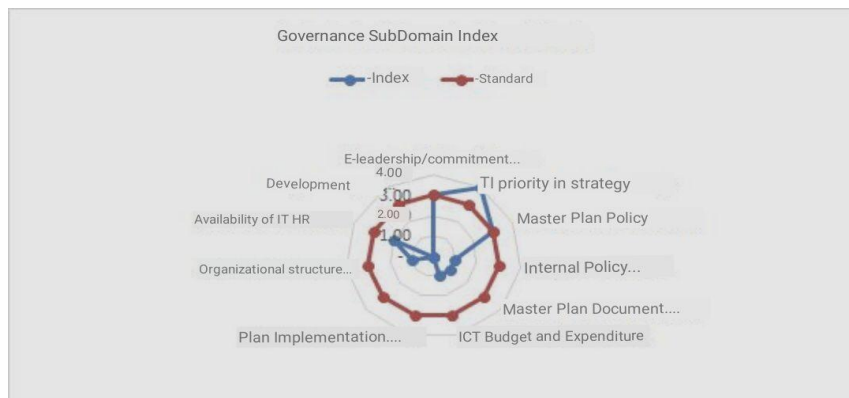
Figure 2. Subdomain Index Of Regional Library And Archives Administration

    Total Scoring Score   : 1.25
    Evaluation Scale   : POOR

1. Infrastructure DomainThe Following Are The Results Of Observations And Questionnaires Obtained From Regional Library And Archives Service Administration For The Infrastructure Domain Which Are Described In Table 5 And Figure 3 Below:

Table 5

Index Of Regional Library And Archives Service Infrastructure Domain

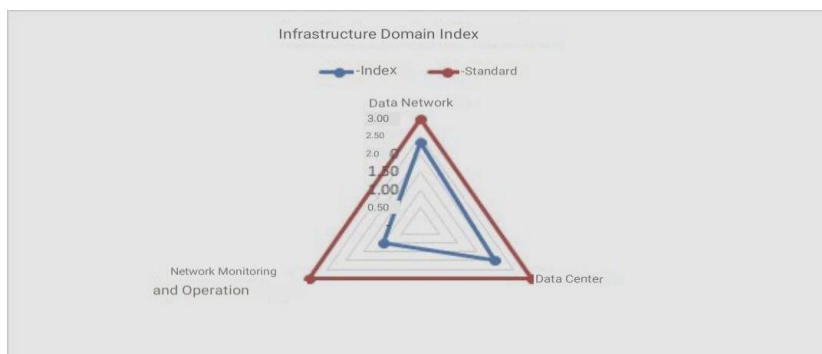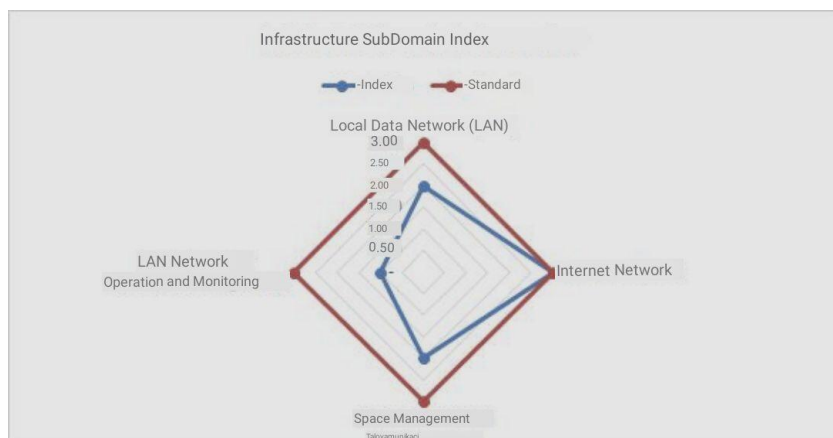| Infrastructure Domain Index	2.10	
SubDomain	**Index**	**Standard**
Data Network	2.33	3.00
Data Center	2.00	3.00
Network Monitoring and Operation	1.00	3.00

Figure 3. Infrastructure Domain Index Of Regional Library And Archives Service

    Total Scoring Score   : 2.10
    Scale Evaluation   : AVERAGE

The Following Are The Results Of Observations And Questionnaires Obtained From DISPUSIPDA For The Infrastructure Subdomain Described In Table 6 And Figure 4 Below.

T a b l e 6

Subdomain Index Of Regional Library And Archives Service

Infrastructure SubDomain Index	2.10	
Indicator	**Index**	**Standard**
Local Data Network (LAN)	2.00	3.00
Internet Network	3.00	3.00
Telecommunication Room Management	2.00	3.00
LAN Network Operation and Monitoring	1.00	3.00

Figure 4. Infrastructure Subdomain Index Of Regional Library And Archives Service

Total Scoring Score   : 2.10
Scale Evaluation   : AVERAG
Application Domain

The Following Are The Results Of Observations And Questionnaires Obtained Regional Library And Archives Service Administration For The Application Domain Which Are Described In Table 7 And Figure 5 Below:

T a b l e 7

Application Domain Index Of Regional Library And Archives Service

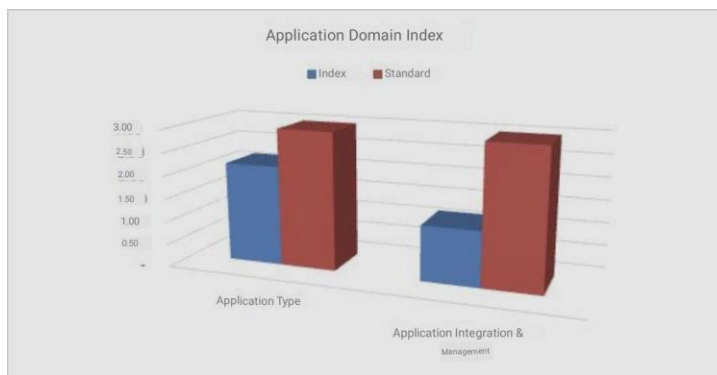| Application Domain Index	2.01	
Aspect	**Index**	**Standard**
Application Type	2.18	3.00
Application Integration & Management	1.20	3.00

Figure 5. Application Domain Index Of The Library And Blood Archives Service

Total Scoring Score   : 2.01
Scale Evaluation   : BELOW AVERAGE

The Following Are The Results Of Observations And Questionnaires Obtained From The Subdomain Of The Regional Library And Archives Service For Generic Applications Which Are Described In Table 8 And Figure 6 Below:

Table 8

Index Of Application Subdomains For Regional Library And Archives Service

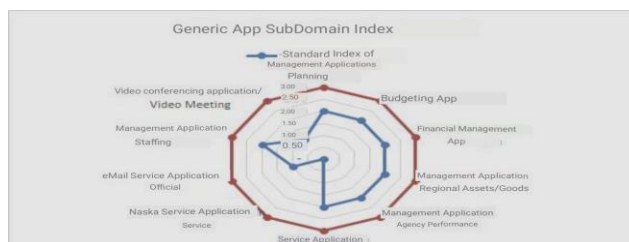| Generic App Sub Domain Index	2.06	
Indicator	Index	Standard
Planning Management App	2.00	3.00
Budgeting App	2.00	3.00
Financial Management App	2.00	3.00
Regional Asset/Goods Management Application	2.00	3.00
Agency Performance Management Application	2.00	3.00
Goods/Services Procurement Service Application	2.00	3.00
Official Manuscript Service Application	-	3.00
Official eMail Service App	1.00	3.00
Personnel Management Application	2.00	3.00
Video Conference/Video Meeting Application	1.00	3.00

Figure 6. Generic Application Subdomain Index Of The Regional Library And Archives Service

Total Scoring Score   : 2.06

Scale Evaluation   : AVERAGE
The Following Are The Results Of Observations And Questionnaires Obtained From DISPUSIPDA Special Applications Subdomain Which Are Described In Table 9 And Figure 7 Below:

Table 8

Index Of Special Application Subdomains For The Regional Library And Archives Service

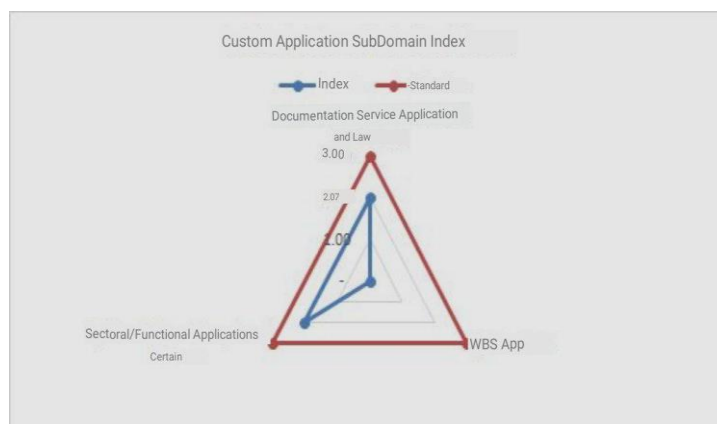| Custom Application Sub Domain Index	1.38	
Indicator	**Index**	**Standard**
Applications for Documentation and Legal Services	2.00	3.00
WBS App	-	3.00
Specific Sectoral/Functional Applications	2.00	3.00

Figure 7. Special Application Subdomain Index For The Regional Library And Archives Service

Total Scoring Score   : 1.38
Scale Evaluation   : BELOW AVERAGE
The Following Are The Results Of Observations And Questionnaires Obtained From Regional Library And Archives Service Administration For The Public Service Application Subdomain Which Are Described In Table 10 And Figure 8 Below:

Table 10

Index Of Public Service Application Subdomains Of The Regional Library

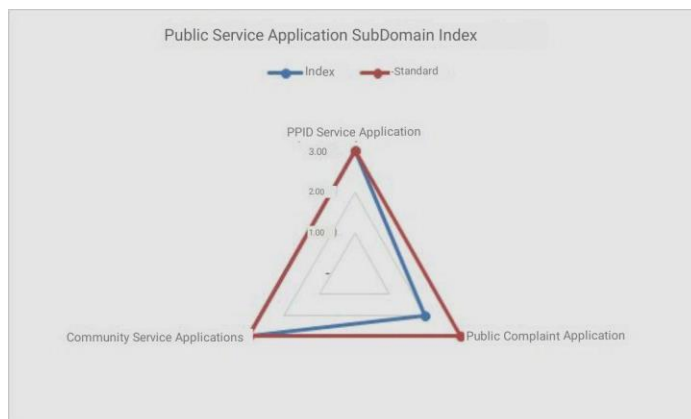| Public Service Application Sub Domain Index	2.65	
Indicator	Index	Standard
PPID Service Application	3.00	3.00
Public Complaint Application	2.00	3.00
Community Service Apps	3.00	3.00

Figure 8. Public Service Application Subdomain Index Of Library And Archives Service

Total Scoring Score   : 2.65
Scale Evaluation   : AVERAGE

The Following Are The Results Of Observations And Questionnaires Obtained Regional Library And Archives Service Administration For Application Integration & Management Which Are Described In Table 11 And Figure 9 Below:

Table 11

Integration & Application Management Index For Regional Library And Archives Service

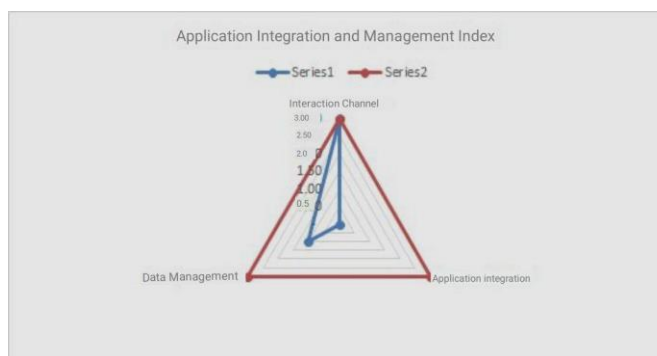| Application Integration & Management Index	1.20	
Indicator	**Index**	**Standard**
Interaction Channel	3.00	3.00
Application Integration	-	3.00
Data Management	1.00	3.00

Figure 9. Integration & Application Management Index For The Regional Library And Archives Service

Total Scoring Score   : 1.20
Scale Evaluation   : BELOW AVERAGE

3. Information Security Domain

The Following Are The Results Of Observations And Questionnaires Obtained From The Regional Library And Archives Service Of The Information Security Subdomain Which Are Described In Table 12 And Figure 10 Below

Table 12

Information Security Subdomain Index Of Regional Library And Archives Servise

Information Security Sub-Domain Index	0.50	
Indicator	Index	Standard
Information Security Management	1.00	3.00
Information Security Infrastructure	-	3.00

Figure 10. Information Security Subdomain Index Of The Regional Library And Archives Service

Total Scoring Score   : 0.50
Scale Evaluation   : POOR

Conclusion :

Based On The Assessment Results Of The ICT Maturity Level Measurement At The Regional Library And Archives Service, Some Recommendations For Each Sub Domain Are As Follows:

A.   IT Governance And Management Domain :

1). The Library And Archives Service Already Has Internal Policies Related To ICT Planning And Budgeting, However, It Is Still A Concept. This Policy Should Be Implemented To Support ICT Management And Planning To Align With The Overall Content Of The ICT Master Plan.

2). Need To Create Documentation Regarding ICT Master Plan And IT Service/Operational Management Procedures.

3) . It Is Necessary To Identify The Need For IT HR Competencies.

B. Infrastructure Domain:

1). The Local Data Network Needs Further Development For All Work Units And Is Developed According To   Standards.

2) . Need Documentation Of Network Infrastructure.

3) . It Is Necessary To Improve Server Room Management And Utilize The Data Center Of The West Java Provincial Government.

C. Application Domain:

1). In General, Generic Applications Have Been Used For All Features But Need To Be Improved For Optimal   Utilization.

2). It Is Necessary To Use An Official Email For Official Purposes.

3). Need To Take Advantage Of The Official Letter Application That Has Been Provided By The West Java Provincial Government.

D. Information Security Domain:

1). It Is Necessary To Implement Information Security Management System Procedures.

2). It Is Necessary To Have An Information Security Infrastructure FollowingThe Standards.

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