



**Websphere Message Broker rules (IIB/ ACE)**

R1	Keywords should be in upper case	ESQL	5min	Readability	
R2	Negative IF / ELSE condition	ESQL	1hour	complexity	readability
R3	Have preference for XMLNSC over XMLNS	ESQL	20min	performance	
R4	Database is accessed but we cannot check the logic as no readonly account assigned to sonar	DB	1hour	database	
R5	Unused variable or unused parameters in procedure of function call	ESQL	10min	bestpractices	performance
R6	A table has been referenced that has not been found in the schema	DB	60min	database	
R7	A column being referenced has not been found in the DB schema	DB	60min	database	
R8	A column being referenced has not been indexed. This may be a performance issue	DB	60min	database	performance
R9	Your licence has expired		60min	licence	
R10	No MQ Definition file/s have been found. The plugin will be unable to check the MQ setup against the code	MQ	60min	mq	
R11	MQ Queue defined but not used in the code	MQ	60min	mq	
R12	MQ Queue used in the code but not listed in the definition file	MQ	60min	mq	
R13	The messageflow looks to be invalid (not valid xml)	MSGFLOW	60min	messageflow	pluginerror
R14	The flow has two or more COMPUTE nodes in a row	MSGFLOW	60min	performance	
R15	Navigating message tree could be replaced by a reference (2 lines)	ESQL	60min	performance	
R16	Unused method (function or procedure)	ESQL	60min	readability	
R17	Atomic references atomic	ESQL	60min	deadlock	error
R18	Credentials are in plain text	ESQL, MSGFLOW	60min	security	
R19	The line is extra long and may cause issues being viewed	ESQL	1min	readability	standards
R20	The file does not contain company name in the header comments	ESQL	5min	documentatiorstandards	
R21	Avoid using CARDINALITY within loops	ESQL	40min	performance	
R22	Environment values should be under the Variables subtree	ESQL	40min	performance	
R23	Use LocalEnvironment over Environment	ESQL	60min	performance	
R24	Source file is empty	ESQL, MSGFLOW	5min	readability	
R25	Try/Catch no functional catch connected. May cause errors to be lost	MSGFLOW	5min	exceptionhancstandards	
R26	Two or more RCD nodes in the same flow path	MSGFLOW	5min	performance	
R27	The MB-Precise plugin has failed to process this file completely. Please look in the SONAR debug for more details		5min	pluginerror	
R28	Cyclomatic Complexity is higher then the threshold	ESQL	120min	complexity	readability
R29	The function or procedure is longer than the threshold	ESQL	60min	complexity	readability
R30	Node refers to an empty main method. Either code has been left out or the node can be removed from the flow	ESQL, MSGFLOW	10min	completeness	performance
R31	Message flow does not contain a note	MSGFLOW	10min	documentatiorstandards	
R32	MQNode name within the flow doesn't match the Queue name	MSGLOW	10min	mq	readability standards
R33	The PASSTHRU statement parameters and values don't match	ESQL	30min	correctness	database sql
R34	The node has a very long delay waiting for a response. This will cause blocking of the runtime and could suggest issue with the design/arch	MSGFLOW	120min	architecture	performance
R35	The flow references a method that cannot be found in the esql code	MSGFLOW	30min	completeness	
R36	A subflow has been created but is not being referenced. It may be able to be removed	SUBFLOW	30min	completeness	readability
R37	Check node found in the flow. Check node has deprecated by the validation node	MSGFLOW	5min	deprecated	standards
R38	Database access with low polling interval could cause database contention issues for other applications/code	MSGFLOW	45min	database	performance
R39	Using a SELECT * will affect the resources used (memory) if not all the fields are required	ESQL	120min	database	performance
R40	Code is unreachable following a RETURN or THROW statement	ESQL	20min	correctness	readability
R41	The method/procedure has a higher number of parameters then the threshold	ESQL	60min	complexity	readability
R42	The parameter on a method/procedure has a short name (and is likely to be meaningless)	ESQL	20min	readability	standards
R43	TODD has been left in the comments	ESQL	10min	completeness	readability
R44	SLEEP() has been called. Calling SLEEP blocks the flow in the execution group	ESQL	60min	architecture	performance

Rules

R45	CASE statement has single WHEN. Could be replaced by an IF statement	ESQL	15min	completeness readability		
R46	CASE has no default ELSE statement	ESQL	15min	completeness readability		
R47	Multiple statements on the same line	ESQL	5min	readability	standards	
R48	The input node has no failure handler connected. Errors may not be able to be tracked or may be lost	MSGFLOW	60min	correctness	exceptionhandling	standards
R49	There is no input connection to this node. The code may not be reachable or functioning	MSGFLOW	20min	correctness	readability	
R50	Label has no associated processing logic attached	MSGFLOW	30min	correctness		
R51	Not all input nodes connected. Resources may not be processed correctly	MSGFLOW	30min	correctness		
R52	The filter node may not have its connections connected correctly	MSGFLOW	60min	correctness		
R53	The filter node cannot modify the message	ESQL	60min	correctness		
R54	The date format may not be correct	ESQL	20min	correctness		
R55	The COMPUTE nodes connections are inconsistent	ESQL, MSGFLOW	50min	correctness		
R56	The LOOP may not have a valid LEAVE statement (and may not exit validly)	ESQL	60min	correctness		
R57	The code may be referring a to field that is not part of the MQMD header definition (and may be ignored)	ESQL	20min	correctness		
R58	BITSTREAM is deprecated. Use ASBITSTREAM instead	ESQL	60min	deprecated	performance	standards
R59	The queue name defined may not be compliant (length, case, underscores, starts with SYSTEM., blanks, short names)	MQ	10min	standards		
R60	Usually the RouteTo and Label are in the same flow as to make things more readable	MSGFLOW	20min	correctness	ccstandards	
R61	It is good programming practice to give an EXTERNAL variable an initial value	ESQL	10min	readability	standards	
R62	The routing nodes connections and filters may not be consistant	MSGFLOW	60min	correctness		
R63	The message flow may not have been included in the deployment build scripts	ANT	10min	correctness		
R64	The message flow has a long path	MSGFLOW	120min	performance	readability	
R65	The message flow does not consistently reply to messages/requests	MSGFLOW	30min	correctness		
R66	SOAPInputNode does not have 'Enable support for ?wsdl checked'	MSGFLOW	10min	correctness		
R67	InputNode parse timing is not set to 'complete'	MSGFLOW	10min	standards		
R68	InputNode validation is not set to 'content and value'	MSGFLOW	10min	standards		
R69	MQInputNode domain should be XMLNSC	MSGFLOW	10min	standards		
R70	InputNode 'Build tree using XML schema data types' not set	MSGFLOW	10min	standards		
R71	The input node has no catch handler connected. Errors may not be able to be tracked or may be lost	MSGFLOW	30min	correctness	exceptionhandling	standards
R72	The SOAP input node does not have the required monitoring events added	MSGFLOW	20min	standards		
R73	The MQ input node does not have the required monitoring events added	MSGFLOW	20min	standards		
R74	The SOAP Request node does not have the required monitoring events added	MSGFLOW	20min	standards		
R75	The MQ output node does not have the required monitoring events added	MSGFLOW	20min	standards		
R76	The JMS output node does not have the required monitoring events added	MSGFLOW	20min	standards		
R77	The Publication node does not have the required monitoring events added	MSGFLOW	20min	standards		
R78	The UOW on the monitoring event is not set to 'none'	MSGFLOW	20min	standards		
R79	The Monitoring Events Local Transaction Correlator is not 'automatic'	MSGFLOW	20min	standards		
R80	The Monitoring Events Parent Transaction Correlator is not 'automatic'	MSGFLOW	20min	standards		
R81	The Monitoring Events Global Transaction Correlator is not '\$Root/SOAP/Header/btg:businessHeader/globalTransactionId' (applies to SOMSGFLOW	MSGFLOW	20min	standards		
R82	The Monitoring Events Global Transaction Correlator is not '\$Root/MQRFH2/usr/globalTransactionId' (applies to MQ nodes)	MSGFLOW	20min	standards		
R83	The Monitoring Events Global Transaction Correlator is not '\$Environment/btg:monitoring/globalTransactionId' (applies to JMS nodes)	MSGFLOW	20min	standards		
R84	The xml.xsd file is not imported in the soapenv11.xsd	XSD	20min	standards		
R85	The <Header> element does not have the namespace field set to '##any'	XSD	20min	standards		
R86	The faultstring Fault element has to be a FaultString type and not a String type	XSD	20min	standards		
R87	The MQInputNode Transaction mode should be 'yes'.	MSGFLOW	20min	standards		
R88	A terminal that has been deprecated is being used	MSGFLOW	45min	deprecated	standards	
R89	Classification entry is not set for online	MSGFLOW	20min	standards		
R90	The flow contains a duplicate UDP/property default value	MSGFLOW	20min	standards		
R91	The filter node may only have one return value	ESQL	30min	correctness		
R92	The condition is more complicated then the threshold	ESQL	60min	complexity		
R93	The COMPUTE mode is message but the message is never read or written	ESQL, MSGFLOW	60min	correctness		
R94	The COMPUTE node never creates an output message	ESQL, MSGFLOW	60min	correctness		
R95	The main method is referred to by more then 1 COMPUTE node	MSGFLOW	60min	correctness		
R96	Flow contains an MQReplyNode without an MQInputNode	MSGFLOW	90min	correctness		
R97	The AggregateControl Node has an infinite timeout set. This may cause flows to never complete if all replies do not arrive	MSGFLOW	90min	correctness		
R98	The timeouts on the nodes in the flow are potentially longer than the allowed delay on the input node	MSGFLOW	90min	correctness	performance	
R99	The MQGet node has an infinite timeout set. This may cause flows to never complete if the requested message is not available	MSGFLOW	90min	architectual	performance	
R100	The XSL cache is set to 0, so style sheets will be compiled each time the node runs	MSGFLOW	10min	performance		
R101	MQInputNode domain should use XMLNSC over XMLNS	MSGFLOW	15min	performance	standards	

Rules

R102	COMPUTE nodes are not allowed (ESQL code should be avoided)	ESQL	90min	standards		
R103	The default schema is being used which that should be avoided	ESQL	15min	standards		
R104	Module names should be named using camel case	ESQL	10min	standards		
R105	The schema name is not matching what has been set in the property file	ESQL, MSGFLOW	10min	standards		
R106	Reading whole file may cause issues with performance. Split into batches where possible	MSGFLOW	60min	performance		
R107	Duplicate method	ESQL	60min	readability	standards	
R108	Trace nodes should not be used	MSGFLOW	5min	standards		
R109	Java Compute nodes should not be used	MSGFLOW	90min	standards		
R110	The input node has been set to allow multiple instances	MSGFLOW	50min	standards		
R111	CopyEntireMessage makes calling CopyMessageHeaders redundant	ESQL	15min	performance	standards	readability
R112	BAR files should be generated and not part of the project		15min	standards		
R113	Queues defined should have descriptions	MQ	10min	standards		
R114	Queues should be based on templates	MQ	10min	standards		
R115	BOTHRESH and BOQNAME should be defined	MQ	15min	correctness	standards	
R116	Queue is set as clustered	MQ	15min	correctness	standards	performance
R117	Queue description is longer then 100 characters	MQ	15min	correctness	standards	
R118	Listener name doesnot match pattern	MQ	10min	standards		
R119	BACKOUT queue name does not match the pattern *.BACKOUT	MQ	15min	standards		
R120	Constant declarations should be in UPPER_CASE	ESQL	10min	standards		
R121	Header files should contain author, version and date (ESQL and Message flows)	ESQL, MSGFLOW	5min	standards		
R122	Should not include CC01_GenerateLogEvents subflow	MSGFLOW	20min	standards		
R123	Variables should start with a lower case	ESQL	5min	standards		
R124	Function and procedure names should start with lower case	ESQL	5min	standards		
R125	Parameters should have a direction	ESQL	10min	correctness	standards	
R126	Should check that the last MOVE completed	ESQL	15min	correctness		
R127	Native IIB input/ouput nodes should be only via a subflow	MSGFLOW	60min	standards		
R128	Try/catch nodes should be only via a subflow	MSGFLOW	60min	correctness	standards	
R129	Function and procedure names should start with upper case	ESQL	10min	standards		
R130	MQInput nodes transactionMode should be set to 'yes'	MSGFLOW	15min	correctness	standards	
R131	The COMPUTE node does not have a name	ESQL	5min	correctness	standards	
R132	The COMPUTE node name and ESQL module do not match	ESQL	15min	standards		
R133	The library name is longer then 30 characters	PROJECT	15min	standards		
R134	The library name does not match the pattern ICC_CMM_*	PROJECT	15min	standards		
R135	Flows should write to alias queue not the queue directly	MSGFLOW	15min	standards		
R136	MessageSet name is longer then 30 characters	MSGSET	15min	standards		
R137	he MessageSet name does not match the pattern <BUSINESS SERVICE ID>[_<INTERFACING SYSTEM NAME>]_{'COMMON' <BUSINMSGSET	MSGSET	25min	standards		
R138	TOPICSTR has non recommended characters	MQ	50min	correctness	standards	
R139	SUB(subscription) does not match DEST queue	MQ	10min	correctness	standards	
R140	The queue name defined may not be compliant with the naming standard	MQ, ESQL, MSGFLOW	10min	correctness	standards	
R141	The line contains both code and comments. Trailing comments are discouraged	ESQL	1min	standards		
R142	The Function/Procedure/Module does not contain a comment (reporting only once)	ESQL	10min	standards		
R143	Found CF02_CC01_GenerateLogEvents but CaptureBusinessKeys not set	MSGFLOW	20min	correctness	standards	
R144	The channel name defined may not be compliant with the naming standard	MQ	10min	correctness	standards	
R145	The channel XMITQ and does not have a matching transmission queue	MQ	15min	correctness	standards	
R146	The XPATH contains //. // selects nodes from anywhere in the document and can affect peformance of the XSL	XSL	10min	performance		
R147	The XSL contains an xsl:message element. These are usually only used in non-production code	XSL	50min	performance		
R148	The XSL contains an xsl:message element with terminate set to 'yes'. That will stop the XSLT processor	XSL	30min	correctness		
R150	An xsl:choose with only 1 when condition could be replaced with an xsl:if	XSL	15min	readability		
R151	An xsl:choose is missing an fall through xsl:otherwise	XSL	30min	standards		
R152	An xsl:otherwise is empty	XSL	30min	correctness	readability	
R159	An XSL variable has been declared but not used/referenced	XSL	15min	correctness	readability	standards
R160	An XSL variable has used but not declared	XSL	15min	correctness	readability	
R163	The <xsl:variable> name doesn't help understanding the code (it may be meaningless)	XSL	5min	standards		
R164	CopyEntireMessage makes calling CopyMessageHeaders redundant	ESQL	15min	performance		
R165	Properties' is not included in the map and will be left empty when the node finishes	MAP	15min	correctness		
R166	IF condition missing ELSE	MAP	10min	correctness		
R167	TODO found in mapping node	MAP	10min	completeness	correctness	

Rules

R168	COMPUTE node should throw exception on database error	MSGFLOW	5min	correctness	standards	
R169	ESQL code has been commented out. It should be removed before code checkin	ESQL	25min	correctness	readability	
R170	The rule template has flagged all MQ flows to be deployed to at least 2 execution groups		15min	correctness		
R172	EVAL statements may pose security issues	ESQL	60min	security	standards	
R173	SOAP.Context.SOAP_Version is not 1.1 or 1.2	ESQL	15min	correctness		
R174	Assigning to null will delete the field in the output, did you want to set the field to empty instead?	ESQL	10min	correctness		
R175	The message domain may not be valid (MQMD, SOAP, XML, XMLNSC, BLOB, JSON, MRM)	ESQL	10min	correctness		
R176	That child element may not be valid in that domain	ESQL	10min	correctness		
R177	Use SOAP domain over XML or XMLNSC	ESQL	15min	performance		
R178	Header files should contain author, version and date (ESQL only)	ESQL	5min	documentation	standards	
R179	Module names should be named using camel case	ESQL	5min	documentation	standards	
R180	BOTHRESH and BOQNAME should not be defined for a backout queue	MQ	5min	correctness		
R181	Commit mode should be '1-SEND_THEN_COMMIT', Sync level '0-NONE' for IMSRequest node	MSGFLOW	15min	correctness	standards	
R182	It is good programming practice to give an EXTERNAL variable an initial value - blanks are allowed	ESQL	5min	correctness	standards	
R183	The Function/Procedure/Module does not contain a comment (multiple)	ESQL	5min	documentation	standards	
R184	Module names should be named using camel case	ESQL	5min	documentation	standards	
R185	Module names should not contain a space, later versions of IIB cannot have a space in a module name	ESQL	10min	compatibility	standards	
R186	A DELETE FROM a table with no criteria has been found, all rows will be deleted	ESQL	10min	correctness		
R187	Mapping nodes should not be used	MAP, MSGFLOW	60min	standards		
R188	DECLARE could be combined	ESQL	10min	performance		
R189	IF/ELSE could be CASE	ESQL	20min	Readability		
R190	File does not contain header comments (ignore case)	ESQL	10min	Readability	standards	
R191	Note on msgflow should contain Name, Author, Date and description	MSGFLOW	10min	Readability	standards	
R192	Note on subflow should contain Name, Author, Date and description	MSGFLOW	10min	Readability	standards	
R193	The ESQL format is not formatted correctly	ESQL	5min	Readability	standards	
R194	The node name is a duplicate within the flow	MSGFLOW	15min	correctness	readability	
R195	COMPUTE node is the last node in the flow	MSGFLOW	15min	correctness	performance	readability
R196	A hard coded mapping was found in the ESQL	ESQL	10min	Readability	standards	
R197	THROW USER EXCEPTION MESSAGE '3001' found	ESQL, MSGFLOW	10min	standards		
R198	Number of nodes in a msgflow exceeded	MSGFLOW	60min	complexity	performance	
R199	Number of nodes in a subflow exceeded	SUBFLOW	60min	complexity	performance	
R200	The message flow attempts to reply to a non-existent request	MSGFLOW	30min	correctness		
R201	MQMD UserIdentifier has been changed	ESQL	30min	standards	correctness	
R202	SOAP Request node does not have its SOAP Fault terminal wired	MSGFLOW	20min	correctness	standards	
R203	MQOUTPUT nodes validation should be set to 'content and value'	MSGFLOW	10min	correctness	standards	
R204	Constant does not match the regular expression provided	ESQL	5min	standards		
R205	The filter node 'unknown' terminal should be connected	MSGFLOW	30min	correctness		
R206	The SCA node 'fault' terminal should be connected	MSGFLOW	30min	correctness		
R207	The SOAP Async node 'fault' terminal should be connected	MSGFLOW	30min	correctness		
R208	The HTTP Async request node 'failure' terminal should be connected	MSGFLOW	30min	correctness		
R209	The MQGET node 'warning' terminal should be connected	MSGFLOW	30min	correctness		
R210	The MQGET node 'no message' terminal should be connected	MSGFLOW	30min	correctness		
R211	The FILEREAD node 'no match' terminal should be connected	MSGFLOW	30min	correctness		
R212	The COMPUTE node does not have a return value	ESQL	15min	correctness		
R213	String concatenations must not be chained more than 3 times	ESQL	15min	standards	performance	
R214	BOOLEAN ESQL variables should be named 'is'	ESQL	5min	standards		
R215	FILEOUTPUT node should not be used	MSGFLOW	30min	standards		
R216	MQINPUT node should not have 'Transaction rollback' event configured	MSGFLOW	5min	standards		
R217	MQINPUT node should not have 'Failure terminal' event configured	MSGFLOW	5min	standards		
R218	Topic Wilcard contains WILDCARD(BLOCK) recommend WILCARD(PASSTHRU)	MQ	20min	standards		
R219	Filter node following a Compute node is redundant	MSGFLOW	20min	correctness	performance	
R220	IF / ELSE could be a single COALESCE statement	ESQL	10min	Readability		
R221	Use connection properties defined on node set. Set configuration service to 'IMSConnectService' for IMSRequest node (ABN)(WMB)	MSGFLOW	10min	Reliability		
R222	Ensure Message Domain is set to 'BLOB' for IMS Request (ABN)(WMB)	MSGFLOW	10min	Reliability		
R223	Commit mode should be '0-COMMIT_THEN_SEND', for IMSRequest node (ABN) (WMB)	MSGFLOW	15min	Reliability		
R224	Use space before and after '=' (equals) (WMB)	ESQL	50min	Readability		
R225	Function, procedure or module name does not match regular expression provided (WMB)	ESQL	15min	Reliability		

Rules

R226	User defined SOAP headers should be set to 'must understand' (WMB)	MSGFLOW	15min	Reliability
R227	HTTPInput node fault format should be set to HTML (WMB)	MSGFLOW	15min	Reliability
R228	LocalEnvironment values should be under the Variables subtree (WMB)	ESQL	40min	Readability
R229	General variables should be defined at the top of the function before any code, unless defined and used within a nested code block (WMB)	ESQL	15min	Readability
R230	THROW Statement should use COALESCE or parameters to prevent secondary errors (WMB)	ESQL	15min	exceptionhandling
R231	WHILE loop should be FOR loop (WMB)	ESQL	30min	Reliability
R232	Anonymous field references should only be used where they are required (*[<]) (WMB)	ESQL	30min	Reliability
R233	MQOutputNode queue name and destination mode 'destinationlist' used (WMB)	MSGFLOW	30min	Reliability
R234	Queue name and node name cannot be the same (RS) (WMB)	MSGFLOW	30min	Maintainability
R235	Global functions should be in Common_Functions.esql (RS) (WMB)	ESQL	30min	Maintainability
R236	Global variables should be in Common_Variables.esql (RS) (WMB)	ESQL	30min	Maintainability
R237	Messageflow/subflow missing short description (WMB)	SUBFLOW, MSGFLOW	10min	Maintainability
R238	Messageflow/subflow missing long description (WMB)	SUBFLOW, MSGFLOW	10min	Maintainability
R239	Messageflow/subflow missing version (WMB)	SUBFLOW, MSGFLOW	10min	Maintainability
R240	Reference variables should always be declared against a known structure (WMB)	ESQL	15min	Readability
R241	ROUND_HALF_UP should be used (WMB)	ESQL	15min	Reliability
R242	Declared NAMESPACE should match regular expression (RS) (WMB)	ESQL	10min	Readability
R243	REFERENCE TO should match regular expression (RS) (WMB)	ESQL	10min	Readability
R244	WSDL operation does not start with a verb (RS) (WMB)	MSGFLOW	30min	Readability
R245	A hard coded mapping was found in the ESQL (allow empty string) (WMB)	ESQL	10min	Readability
R246	Input URL path should be promoted with default value as <OVERRIDE_ME_DURING_DEPLOYMENT> (RS) (WMB)	MSGFLOW	20min	Maintainability
R247	Use FIELDTYPE over EXISTS for checking list elements (WMB)	ESQL	20min	Reliability
R248	The <xsl:variable> could be assigned using a 'select' (XSL)	XSL	20min	performance
R249	Version 2.0 style sheet using 'node-set' (XSL)	XSL	20min	performance
R250	There are redundant namespace declarations in the xsl:stylesheet element (XSL)	XSL	20min	Maintainability
R251	Using name() function instead of local-name() (XSL)	XSL	20min	Reliability
R252	CopyEntireMessage found. Prefer 'SET OutputRoot = InputRoot;' (WMB)	ESQL	10min	performance
R253	CopyMessageHeaders found (WMB)	ESQL	10min	performance
R254	EXTERNAL variables (UDP) should be camelcase (WMB)	ESQL	10min	Readability
R255	Messageflow project name should be in one of the allowed naming patterns (WMB)	MSGFLOW	20min	Maintainability
R256	Messageflow name should be in one of the allowed naming patterns (WMB)	MSGFLOW	20min	Readability
R257	Subflow name should be in one of the allowed naming patterns (WMB)	SUBFLOW	20min	Readability
R258	MessageSet path should be in one of the allowed naming patterns (WMB)	MSGSET	20min	Maintainability
R259	THROW statement should include at least 2 params one of which should be MessageFlowLabel (WMB)	ESQL	20min	exceptionhandling
R260	Optional or mandatory should be explicitly set on xs:string elements (WMB)	XSD	20min	Reliability
R261	CARDINALITY has been used (WMB)	ESQL	20min	Reliability
R262	Queue name for MQInputNode should match pattern <Message Flow Name>.IN[<Sequence Number>   _<Function Suffix>] (only Upper MQ	ESQL	20min	Maintainability
R263	WHILE loop has been used, check whether it can be replaced with a FOR loop (WMB)	ESQL	20min	Reliability
R264	SELECT from repeatable datastructures should be FROM[] (WMB)	ESQL	30min	Reliability
R265	There is no space after comma or there are no spaces around the math operators (XSL)	ESQL	30min	Reliability
R266	An xsl:template is empty (WMB)	XSL	30min	Reliability
R267	Too many low granular templates in the stylesheet (10 or more) (XSL)	XSL	30min	Readability
R268	There are two or more templates that apply the same match (XSL)	XSL	30min	Reliability
R269	There are two or more templates that have the same name (XSL)	XSL	30min	Reliability
R270	Using the output method 'xml' when generating HTML code (XSL)	XSL	30min	Reliability
R271	The function or template's size/complexity is high. There is need for refactoring the code (XSL)	XSL	30min	Readability
R272	Have set the disable-output-escaping attribute to 'yes'. Please relook at the stylesheet logic (XSL)	XSL	30min	Reliability
R273	Setting disable-output-escaping attribute to 'no' is redundant (XSL)	XSL	30min	Maintainability
R274	Creating an element node using the xsl:element instruction when could have been possible directly (XSL)	XSL	30min	performance
R275	You might be confusing a variable reference with a node reference	XSL	30min	Reliability
R276	Incorrectly using the boolean constants as 'true' or 'false' (XSL)	XSL	30min	Reliability
R277	Using a single character name for variable/function/template. Use meaningful names for these features. (XSL)	XSL	30min	Maintainability
R278	Probably bad name of the variable or argument (XSL)	XSL	30min	Readability
R279	The stylesheet is not generating any useful output. Please relook at the stylesheet logic (XSL)	XSL	30min	Reliability
R280	Using the deprecated namespace axis, when working in XSLT 2.0 mode (XSL)	XSL	30min	Readability
R281	Using the XSLT 1.0 mode (XSL)	XSL	30min	Readability
R282	Using the lengthy axis specifiers like child::, attribute:: or parent::node() (XSL)	XSL	30min	Readability

## Rules

R283	The XSL contains an xsl:message element with terminate set to 'no' but it is set as 'alert', 'error' or 'emergency'. (XSL)	XSL	30min	Reliability
R284	EXTERNAL variables (UDP) should be camelcase (RS) (WMB)	ESQL	15min	Maintainability
R285	Propagated OutputRoot.Properties may not be accurately set before data is parsed / output (WMB)	ESQL	90min	Reliability
R286	Messageflow looks to be a subflow (WMB)	MSGFLOW	20min	Readability
R287	An XSL function has been declared but not used/referenced (XSL)	XSL	30min	Reliability
R288	An XSL template has been declared but not used/referenced (XSL)	XSL	30min	Reliability
R289	A global ESQL variable is only used once. It could be a local variable (WMB)	ESQL	30min	performance
R290	Use braces around conditions to make the code more readable (WMB)	ESQL	30min	Readability
R291	Avoid looping connections of the nodes back onto themselves (WMB)	ESQL	90min	Reliability
R292	Variables should have meaningful names (WMB)	ESQL	10min	Maintainability
R293	Transaction mode should be 'automatic' to use persistent messages (ABN) (WMB)	MSGFLOW	90min	Reliability
R294	MQHeader node used (ABN) (WMB)	MSGFLOW	90min	Maintainability
R295	Validation node used (WMB)	MSGFLOW	15min	performance
R296	Filter node name does not match allowed formats (ABN) (WMB)	MSGFLOW	15min	Readability
R297	The name terminals do not match the standards (ABN) (WMB)	MSGFLOW	15min	Readability
R298	Subelements should be named using camel case (WMB)	ESQL	25min	Readability
R299	Multiple nested IF conditions. Use ELSEIF or CASE statement to get quicker dropout (WMB)	ESQL	90min	Readability
R300	The ESQL code is not formatted correctly (ABN) (WMB)	ESQL	20min	Readability
R301	Prefer EXTERNAL variables to be local to the module making use of them (WMB)	ESQL	30min	Maintainability
R302	Use a SELECT+THE in preference to a while loop (WMB)	ESQL	30min	performance
R303	The COMPUTE mode is 'message' (default) but the message is never modified, could be set to 'local environment' (WMB)	ESQL, MSGFLOW	30min	performance
R304	The COMPUTE mode is 'localenvironment' but the message is being modified, should be set to 'localenvironment and message' or 'mess	ESQL, MSGFLOW	30min	Reliability
R305	The COMPUTE mode is 'all' but message, outputenvironment and exceptionlist are not modified (WMB)	ESQL, MSGFLOW	30min	performance
R306	The COMPUTE mode is 'message' (default) but the localenvironment or exceptionlist has been modified (WMB)	ESQL, MSGFLOW	30min	performance
R307	An XML value has not been assigned from FIELDVALUE (WMB)	ESQL	30min	Reliability
R308	SHARED ROW checks not found (RS) (WMB)	ESQL	30min	Reliability
R309	The COMPUTE mode is 'message and local environment' but the message and/or local environment is never modified, could be set to 'm	ESQL, MSGFLOW	30min	performance
R310	Only the exceptionList is modified. Compute mode could be 'exception' (WMB)	ESQL, MSGFLOW	30min	performance
R311	Use space or tab before and after '=' (equals) (SBER) (WMB)	ESQL	50min	Readability
R312	All Message Model Libraries carry a sub-folder named after the Library itself (RS) (WMB)	PROJECT	30min	Maintainability
R313	Compute/Filter nodes that access the DB should have 'treat warnings as errors' set and 'throw exception on DB error' unset (RS) (WMB)	MSGFLOW	30min	Reliability
R314	The procedure is empty (WMB)	ESQL	30min	performance
R315	The message model library contains no schema (xsd) files (WMB)	XSD	30min	Reliability
R316	The message model library name should be in one of the allowed naming patterns (RS) (WMB)	XSD	30min	Maintainability
R317	The COMPUTE mode is 'message and exception' but the message and/or exception is never modified, could be set to 'message' or 'Loca	ESQL, MSGFLOW	30min	performance
R318	The WHILE loop conditions are never updated (and may not exit validly)(WMB)	ESQL	60min	Reliability
R319	BOOLEAN ESQL variables should be named 'b' (and end with Flag) (HN) (WMB)	ESQL	10min	Readability
R320	EXTERNAL variables (UDP) should be camelcase (HN) (WMB)	ESQL	10min	Reliability
R321	HTTPInput node should use XML error handling (WMB)	MSGFLOW	10min	exceptionhandling
R322	THROW statement should include message lookup (ConstantVal) (HN) (WMB)	ESQL	20min	exceptionhandling
R323	Parentheses (brackets) are redundant in this case (WMB)	ESQL	50min	Readability
R324	This assignment is meaningless (WMB)	ESQL	15min	Reliability
R325	This function has an excessive number of returns (WMB)	ESQL	60min	Maintainability
R326	Propagate to label found (WMB)	ESQL	60min	Reliability
R327	Function or procedure is recursive (calls itself) (WMB)	ESQL	90min	Reliability
R328	Function or procedure name is longer then the threshold (WMB)	ESQL	15min	Readability
R329	Multiple blank lines between code (WMB)	ESQL	5min	Readability
R330	Multiple blank lines between code (except between procedures) (WMB)	ESQL	50min	Readability
R331	Function has 0 or only 1 return value (WMB)	ESQL	90min	Readability
R332	The main() function may not have a valid return value so messages may not be propagated (WMB)	ESQL	90min	Readability
R333	The FOR loop is empty (WMB)	ESQL	30min	Reliability
R334	Propagating to an unknown label (WMB)	ESQL	30min	Reliability
R335	ESQL code has been commented out. It should be removed before code checkin (with threshold) (WMB)	ESQL	30min	Reliability
R336	The invoke target has not been found (WMB)	MSGFLOW	15min	Reliability
R337	There are 2 or more of the same target endpoint name (WMB)	MSGFLOW	45min	Reliability
R338	KafkaConsumer nodes should use SSL (WMB)	MSGFLOW	15min	security
R339	Kafka Topic does not match the naming standard (WMB)	MSGFLOW	30min	Maintainability

Rules

R340	The node name must be different from the default name (CS) (WMB)	MSGFLOW	30min	Maintainability
R341	The OR condition can be split to allow correct representation of condition coverage (WMB)	ESQL	30min	testability
R342	A mapping node is calling an ESQL method that accesses the DB (WMB)	MAP	30min	Readability
R343	That LOOP label looks to be non-descriptive (WMB)	ESQL	30min	Readability
R344	There is a variable with a similar name but different case (WMB)	ESQL	15min	Readability
R345	The PASSTHRU statement parameters and values don't match (variable substitution) (WMB)	ESQL	30min	Reliability
R346	Unused message MAP (WMB)	MAP	15min	Maintainability
R347	The same message MAP has been referred to from multiple message flows (WMB)	MAP	90min	Reliability
R348	That message MAP cannot be found (WMB)	MAP	90min	Reliability
R349	Entire MQMD input has been replicated to the output MQMD (KIT) (WMB)	ESQL	60min	Reliability
R350	Calling PROPAGATE or PROPAGATE TO TERMINAL and PROPAGATE TO LABEL in the same compute module is confusing (WMB)	ESQL	120min	testability
R351	The COMPUTE mode is 'exception' but no exception is generated (WMB)	ESQL, MSGFLOW	20min	testability
R352	The COMPUTE mode is 'exceptionAndDestination' but no exception is generated and/or the LE is not modified (WMB)	ESQL, MSGFLOW	20min	testability
R353	MQInputNode domain should be XMLNSC or JSON (WMB)	MSGFLOW	10min	Reliability
R354	HttpRequest nodes should use TLS v1.2 (WMB)	MSGFLOW	10min	security
R355	Use (multiple - more then 1 allowed) space or tab before and after '=' (equals) (RS) (WMB)	ESQL	10min	Readability
R356	ESQL REFERENCE TO variables should end with 'ref' (WMB)	ESQL	10min	Readability
R357	ESQL REFERENCE TO variables should start with 'ref' (WMB)	ESQL	10min	Readability
R358	Only BOOLEAN ESQL variables should be named 'is' (KIT) (WMB)	ESQL	10min	Readability
R359	Only ESQL REFERENCE TO variables should start with 'ref' or end with 'Ref' (WMB)	ESQL	10min	Readability
R360	Only BOOLEAN ESQL variables should be named 'b' (HN) (WMB)	ESQL	10min	Readability
R361	An ESQL CONSTANT with that value is already declared (WMB)	ESQL	60min	Readability
R362	PASSTHRU statement is using data directly from the user. More information can be found from - SQL Injection[CWE-89] (WMB)	ESQL	60min	security
R363	Executable comments found. Are these required to be comments ? (WMB)	ESQL	30min	Readability
R364	Using 'LOG EVENT' to trace could leak information (CWE-209: Information Exposure Through an Error Message) ? (WMB)	ESQL	30min	security
R365	Calling out to a HTTP service using an older (deprecated) SSLProtocol (WMB)	ESQL	90min	security
R366	That CCSID is not in the list that you have set as allowed (WMB)	ESQL	90min	Reliability
R367	That encoding is not in the list that you have set as allowed (WMB)	ESQL	90min	Reliability
R368	HTTP KeepAlive should be set to FALSE (WMB)	ESQL	30min	performance
R369	HTTP KeepAlive should be set to TRUE (WMB)	ESQL	30min	performance
R370	The compute node has a datasource set but it does not access the database (WMB)	ESQL, MSGFLOW	15min	performance
R371	Using CREATE with a PARSE within a LOOP will cause multiple parsers to be created and can consume a lot of resources (WMB)	ESQL	120min	performance
R372	The compute node has a datasource set with auto connect but it does not access the database (WMB)	ESQL, MSGFLOW	15min	performance
R373	Single line ESQL function found (ignore CopyEntireMessage) (WMB)	ESQL	15min	performance
R374	Single line ESQL function found (including CopyEntieMessage) (WMB)	ESQL	15min	performance
R375	The generated procedure CopyMessageHeaders has been modified (WMB)	ESQL	90min	Maintainability
R376	The line contains trailing spaces or tabs (WMB)	ESQL	5min	Readability
R377	Using // in the Opaque Elements may prevent all message parsing (WMB)	MSGFLOW	20min	Readability
R378	Use spaces around binary operators (WMB)	ESQL	20min	Readability
R379	An 'ELSE IF' was found without an else clause (WMB)	ESQL	20min	Reliability
R380	The WHILE loop is empty (WMB)	ESQL	20min	Readability
R381	The IF statement is empty (WMB)	ESQL	20min	Readability
R382	The ELSE statement is empty (WMB)	ESQL	20min	Readability
R383	The ELSEIF statement is empty (WMB)	ESQL	20min	Reliability
R384	A hardcoded IP address has been found (WMB)	ESQL	20min	Maintainability
R385	Duplicate IF/ELSE conditions have been found (WMB)	ESQL	20min	performance
R386	Identical expressions found (WMB)	ESQL	40min	Reliability
R387	IF / ELSEIF condition always TRUE or FALSE (WMB)	ESQL	10min	Reliability
R388	BACKOUT queue name does not match the pattern *.BO (HN)(MQ)	MQ	15min	Reliability
R389	Compute/Filter nodes that access the DB should have 'treat warnings as errors' unset and 'throw exception on DB error' set (HN) (WMB)	ESQL, MSGFLOW	10min	Reliability
R390	Note on msgflow should contain description (WMB)	MSGFLOW	10min	Readability
R391	Note on subflow should contain description (WMB)	SUBFLOW, MSGFLOW	10min	Readability
R392	The schema name does not match 'au.harveynorman.datahub' (HN) (WMB)	ESQL	10min	Readability
R393	The queue name defined may not be compliant with the naming standard (HN) (MQ)	MQ, ESQL, MSGFLOW	10min	Reliability
R394	ESQL Function's Cyclomatic Complexity is higher than the threshold (WMB)	ESQL	120min	Maintainability
R395	THROW statement should include 'errMsg' (HN) (WMB)	ESQL	20min	Reliability
R396	IF / ELSIF logic duplicated (WMB)	ESQL	30min	Reliability

Rules

R397	IF / ELSIF logic contains same function in each condition (WMB)	ESQL	30min	Readability
R398	Multiple Modules defined in the same esql file (WMB)	ESQL	30min	Reliability
R399	Blank line between procedures and functions (WMB)	ESQL	30min	Readability
R400	Avoid using the ITERATE statement (WMB)	ESQL	30min	Readability
R401	All Message Model Libraries should end with 'LIB' (HN) (WMB)	PROJECT	30min	Readability
R402	ESQL files should end with a blank / empty line (WMB)	ESQL	5min	Readability
R403	ESQL keyword should not be used as an identifier (WMB)	ESQL	15min	Readability
R404	Use '?' for parameters when using a PASSTHRU statement (WMB)	ESQL	60min	Readability
R405	Avoid Use of array subscripts in Looping statements (WMB)	ESQL	60min	performance
R406	General variables should be defined at the top of the function before any code, unless defined and used within a nested code block (excl	ESQL	15min	Readability
R407	Variables should start with a lower case (exclude SHARED and EXTERNAL) (WMB)	ESQL	5min	Readability
R408	A comment block contained within another comment block could be confusing (WMB)	ESQL	20min	Readability
R409	That queue name is being read from multiple flows (MQ) (WMB)	MSGFLOW	180min	Reliability
R410	That Http URL is being used from multiple flows (WMB)	MSGFLOW	180min	Reliability
R411	That SOAP URL is being used from multiple flows (WMB)	MSGFLOW	180min	Reliability
R412	The queue name defined may not be compliant with the naming standard - start with HN.* (HN)(MQ)	MQ, ESQL, MSGFLOW	10min	Reliability
R413	IP address hard coded in string (WMB)	ESQL	30min	security
R414	Hard coded URL in string (WMB)	ESQL	30min	security
R415	MQOptimizedFlow nodes will not work in IIB11/ACE (WMB)	MSGFLOW	60min	portability
R416	\$MQSI is mismatched in the comments (WMB)	ESQL	30min	Maintainability
R417	There should be a space to separate the \$MQSI marker in the comments (WMB)	ESQL	30min	documentation
R418	The \$MQSI marker in using a character that is not allowed '(^ \$ .   \ < > ? + * = & [ ] ( )' (WMB)	ESQL	30min	Maintainability
R419	The older style 'msgmap' nodes will not work in IIB11/ACE (WMB)	MAP, MSGFLOW	60min	Maintainability
R420	The schema name does not match the regex provided (WMB)	ESQL	15min	Readability
R421	The nsprefix (schema) of the message flow does not match the regex provided (WMB)	MSGFLOW	10min	Readability
R422	Declared NAMESPACE is not a known w3 namespace (WMB)	ESQL	15min	Readability
R423	The input node has no failure handler connected. Errors may not be able to be tracked or may be lost (ignore generated) (WMB)	MSGFLOW	60min	exceptionhandling
R424	The input node has no catch handler connected. Errors may not be able to be tracked or may be lost (ignore generated) (WMB)	MSGFLOW	30min	Reliability
R425	That AsyncRequestNode ID is being used from multiple flows (WMB)	MSGFLOW	120min	Reliability
R426	That AsyncResponseNode ID is being used from multiple flows (WMB)	MSGFLOW	120min	Readability
R427	The AsyncRequest/AsyncResponseNode ID's don't match across flows (WMB)	MSGFLOW	30min	Reliability
R428	The flow has a compute node following a filter node. Maybe they could be combined ? (WMB)	MSGFLOW	30min	performance
R429	This flow has the highest CPU usage from the stats available (WMB)	MSGFLOW	10min	performance
R430	This node has the highest CPU usage from the stats available (WMB)	MSGFLOW	10min	performance
R431	CONSTANT variables should be camelcase (HN) (WMB)	ESQL	10min	Readability
R432	SHARED variables should be camelcase (HN) (WMB)	ESQL	10min	Readability
R433	Navigating message tree could be replaced by a reference (multiple lines) (WMB)	ESQL	60min	performance
R434	JobExecutionNode using Windows batch files (WMB)	MSGFLOW	180min	Maintainability
R435	JobExecutionNode using Linux or Unix shell files (WMB)	MSGFLOW	180min	Maintainability
R436	JobExecutionNode using Linux (or Unix) shell files and Windows batch files (WMB)	MSGFLOW	180min	Maintainability
R437	SUBSTRING starting FROM 1 could be replaced by LEFT function (WMB)	ESQL	20min	Readability
R438	DB 'COMMIT' called from ESQL (WMB)	ESQL	120min	Readability
R439	DB 'COMMIT' or 'ROLLBACK' called from ESQL from a node that has been it's transaction mode marked as automatic (WMB)	ESQL	120min	Reliability
R440	DB 'ROLLBACK' called from ESQL (WMB)	ESQL	120min	performance
R441	PASSTHRU statement invokes a stored procedure using 'CALL'. Create an external callable procedure with CREATE PROCEDURE .... 'L'	ESQL	30min	Readability
R442	The flow has two or more FILTER nodes in a row (WMB)	MSGFLOW	45min	performance
R443	PASSTHRU uses concatenated characters (  ) (WMB)	ESQL	90min	security
R444	SELECT uses constant value. Could use parameterised value to allow caching prepared statement (WMB)	ESQL	20min	performance
R445	FILEOUTPUT node uses FTP. FTPS or SFTP is preferred (WMB)	MSGFLOW	20min	security
R446	FILEOUTPUT node uses FTP. For ACE FTPS preferred (ACE) (WMB)	MSGFLOW	20min	security
R447	DETACH is last line of function. Could be replaced with a DELETE (WMB)	ESQL	40min	performance
R448	Mismatch between DETACH and ATTACH reference (WMB)	ESQL	40min	performance
R449	Multiple statements on the same line (ignore DETACH / ATTACH) (WMB)	ESQL	10min	Readability
R450	DETACH is not followed by an ATTACH (WMB)	ESQL	10min	Readability
R451	That ClientId is being consumed by multiple flows (WMB)	MSGFLOW	45min	correctness
R452	Your licence is due to expire (2 weeks)		60min	licence
R453	HttpOnly should be set on all cookies to protect against cross-site-scripting (XSS) (WMB)	ESQL	30min	security



Rules

R454 Secure should be set on all cookies to prevent cookies being inspected (WMB)  
 R455 This mapping node has the highest average elapsed time from the stats available (WMB)  
 R456 MQTTSubscribe nodes should use SSL (WMB)  
 R457 MQTTPublish nodes should use SSL (WMB)  
 R458 Duplicate messageset name (WMB)  
 R459 Unused messageset (WMB)  
 R460 Unknown messageset (WMB)  
 R461 Project file found but no corresponding application or library descriptor found (WMB)  
 R462 No project file found but folder looks to be a project (WMB)  
 R463 Git conflict markers were found in the file (WMB)  
 R464 Mercurial conflict markers were found in the file (WMB)  
 R465 TimeoutNotification node Unique Identifier never defined in TimeoutControl (WMB)  
 R466 TimeoutControl node Unique Identifier not used by TimeoutNotification (WMB)  
 R467 Multiple TimeoutNotifications for the same Identifier (WMB)  
 R468 ACE Group Scatter Node doesnot match with Group Complete and Group Gather nodes (WMB)  
 R469 ACE Group Complete Node doesnot match with Group Scatter and Group Gather nodes (WMB)  
 R470 ACE Group Gather Node doesnot match with Group Scatter and Group Complete nodes (WMB)  
 R471 ACE Group Nodes should be in the same flow (WMB)  
 R472 ACE duplicate Group Nodes Group Name used (WMB)  
 R473 WMB/IIB AggretageControl node flow should be GroupScatter node to run in ACE (WMB)  
 R474 Single local element schemas limit options for mapping nodes in ACE (WMB)

ESQL 30min security  
 MAP 30min performance  
 MSGFLOW 60min security  
 MSGFLOW 60min security  
 MSGSET 60min Maintainability  
 MSGSET 60min Maintainability  
 MSGSET 60min completeness  
 PROJECT 20min Maintainability  
 PROJECT 20min Maintainability  
 ESQL 20min Maintainability  
 ESQL 20min Maintainability  
 MSGFLOW 30min correctness  
 MSGFLOW 30min Reliability  
 MSGFLOW 30min Reliability  
 MSGFLOW 60min Reliability  
 MSGFLOW 60min Reliability  
 MSGFLOW 60min Reliability  
 MSGFLOW 60min Reliability  
 MSGFLOW 60min Reliability  
 MSGFLOW 60min Readability  
 MSGFLOW 180min portability  
 MSGFLOW 120min Maintainability

**Datapower**

D1 The XPATH contains // selects nodes from anywhere in the document and can affect peformance of the XSL 30min performance  
 D2 There is no timeout set for MQ Get for open-url 10min performance  
 D3 An option set is not valid 10min correctness  
 D4 A DP extension has been found that is not in the known list 10min correctness  
 D5 A DP variable has been found that is not in the known list 10min correctness  
 D6 The code is trying to change a DP variable that has been marked as read only 10min correctness  
 D7 The code is trying to read a DP variable that has been marked as write only 10min correctness  
 D8 The XSL contains an xsl:message element. These are usually only used in non-production code 10min performance  
 D9 An xsl:choose is missing an fall through xsl:otherwise 10min correctness  
 D10 The XSL contains an xsl:message element with terminate set to 'yes'. That will stop the XSLT processor 10min correctness  
 D11 The XSL contains a dp:priority logging message that is not 'debug', 'info', 'error' or 'emergency' 5min standards  
 D12 An xsl:otherwise is empty 10min correctness  
 D13 The <xsl:variable> name doesn't help understanding the code (it may be meaningless) 10min Readability standards  
 D14 An xsl:choose with only 1 when condition could be replaced with an xsl:if 10min correctness readability  
 D15 An XSL variable has used but not declared 10min correctness  
 D16 An XSL variable has been declared but not used/referenced 10min correctness readability  
 D17 A DP extension-function has been found that is not in the known list 30min correctness  
 D18 Use the pooled DPMQ over MQ wben reading and writing MQ messages 15min performance

**API Connect**

APIC1 Duplicate product name (APIC) 5min Readability  
 APIC2 Hardcoded host name (APIC) 5min Maintainability  
 APIC3 Product should be marked as testable (APIC) 5min Maintainability  
 APIC4 Product scheme should be https (APIC) 5min security  
 APIC5 Produces and consumers should match (APIC) 5min security  
 APIC6 Gateway script used (APIC) 25min complexity  
 APIC7 Console.debug used in gatewayscript (APIC) 10min security  
 APIC8 Targets should be https (APIC) 10min security  
 APIC9 Host not assigned (APIC) 10min completeness  
 APIC10 Sensitive data (password) logged in gateway script (APIC) 10min security  
 APIC11 Policy file should be named -policy (APIC) 10min Maintainability  
 APIC12 Policy should be named -policy (APIC) 10min standards  
 APIC13 Excessive timeout (APIC) 10min exceptionhandling

Rules

APIC14	Gatewayscript formatting issues (APIC)	10min	Readability	Documentation	
APIC15	Basepath should match -api (APIC)	10min	documentation		
APIC16	Catch missing from assembly (APIC)	10min	exceptionhandling		
APIC17	Empty catch in assembly (APIC)	10min	exceptionhandling		
APIC18	Failed to parse gateway script (APIC)	30min	correctness		
APIC19	APIM getContext unknown argument (APIC)	30min	correctness		
APIC20	YAML file could not be parsed (APIC)	30min	correctness		
APIC21	XSLT used (APIC)	60min	portability		
<b><u>Sterling Integrator rules</u></b>					
S1	The lock and unlock operations do not match	15min	correctness		
S2	The ACTION for the LockService is not lock or unlock	15min	correctness		
S3	The LockService has no lock name assigned	15min	correctness	readability	standards
S4	No fault handler has been defined for the process	30min	correctness	standards	exceptionhanc
S5	A fault handler has been defined for the process	30min	correctness	standards	exceptionhanc
S6	Missing name	10min	correctness	standards	
S7	The sequence name is duplicate	20min	correctness	standards	
S8	Use SFTP over FTP	20min	correctness		
S9	Use HTTPS over HTTP	20min	standards		
S10	The process name is used in more then 1 file	20min	correctness	readability	standards
S11	A process is being invoked but the target cannot be found	30min	correctness		
S12	The process name and the invoke name do not match exactly	30min	correctness		
S13	The process is invoking itself. This may be a circular reference	30min	correctness		
S14	Operations after a 'BPEExceptionService' will not be called	15min	correctness	readability	
S15	A rule has been defined but no CASE has been found	15min	correctness	readability	
S16	A CASE statement has been found that does not match a RULE	15min	correctness	readability	
S17	The bpml file cannot be processed. It may not be valid XML	15min	correctness		
S18	TODO has been left in the comments	15min	correctness	correctness	
S19	MQ Queue used in the code but not not listed in the definition file	10min	completeness	mq	deployment
S20	Source file is empty	10min	completeness	standards	
S21	Using a SELECT * will affect the resources used (memory)if not all the fields are required	60min	performance	sql	
S22	A table being referenced has not been found in the DB schema	10min	correctness	database	
S23	A column being referenced has not been found in the DB schema	10min	correctness	database	
S24	A column being referenced has not been indexed. This may be a performance issue	10min	database	performance	
S25	File does not contain header comments	10min	documentatiior	readability	
S26	Header files should contain author, version and date	10min	documentatiior	readability	standards
S27	JDBC has not been configured	10min	database		





















ling  
ling