

node_id	node_name	node_type	description	inputs	outputs	tools_used	trigger_sources	state_reads	state_writes	notes
CRM-BRAN-NOCE-1	Branch Node	System Router	Entry point for any CRM event, makes event to appropriate branch	event_type,action_timestamp,actor	None	None	Branch Node	None	None	Must support Event Log + Automation Log monitoring
CRM-BRAN-NOCE-2	Event Router	System Router	Decides which CRM flow-chain to activate based on event type	None	None	None	Event Router	None	None	Determines routing logic
CRM-BRAN-NOCE-3	Contact Retriever	Retrieval Engine	Pulls contact from RAGKNCRIM	company_id,opportunity_id,mail_metadata,meeting_metadata	rag_context,kg_context,opportunity_id,context,crm_record	RAG Query Tool, KG Query Tool, Opportunity KG Retriever, CRM Lookup	opportunity_stage	crm_record_contact	None	Align w/ Akent's contact architecture
CRM-BRAN-NOCE-4	Email Intent Classifier	LLM Classification	Classifies email intent and required action	email_text,content,bundle	intent_class,urgency,requires,reply_task,task_keywords	LLM Classifier	Email Intent Classifier	opportunity_stage	None	Supports intent detection and routing
CRM-BRAN-NOCE-5	Meetings Decision (Email)	Decision Node	Decides if meeting needs to happen	meeting_summary,contact,stage	meeting_summary,contact,stage	Meeting Decision Engine	Meeting Stage Classifier	opportunity_stage	None	Aligns with MCP. Tools can produce suggested next_stage
CRM-BRAN-NOCE-6	Meeting Outcome Analysis	LLM Analyzer	Extracts meeting outcomes and sales signals	meeting_summary,contact,stage	outcome_stage,signals,task_keywords	LLM Summarizer	Meeting Chain Entry	opportunity_stage	None	Feeds stage enforcement and task logic
CRM-BRAN-NOCE-7	Stage Advancement Decision	Decision Node	Determines if opportunity stage should update	email_update,decision,recommended_stage,rationale	stage_update,decision,recommended_stage,rationale	Stage Advancement Engine	Response Decision (Email) Meeting Outcome Analyzer	opportunity_stage	None	Feeds stage advancement and task logic
CRM-BRAN-NOCE-8	Interactor Updater	Decision Node	Updates interaction fields	task,stage	task,stage	CRM Writer Tool	Interaction Updater (Email) Meeting Outcome Analyzer	opportunity_stage	None	Uses HubSpot-like human decision logic
CRM-BRAN-NOCE-9	Opportunity Updater	CRM Update Node	Updates opportunity fields and stage	stage_update,decision,interaction_id,ct_deal,value_update,healthcode_update	opportunity_record_updated	CRM Writer Tool	Stage Advancement Decision(Deal Value Estimator)	opportunity_stage	last_study_id	Responsible for tracking last study ID for customer
CRM-BRAN-NOCE-10	Deal Value Estimator	Computation Node	Computes deal value based on employee count and heuristic	employees_count,industry,baseline,complaints,historical_average	deal_value,quality,fag	Python Compute Tool	Context Retriever	opportunity_stage	deal_value	Operates after Interaction Updater
CRM-BRAN-NOCE-11	Probability Calculator	Computation Node	Computes probability of deal closing	probability	probability	Python Compute Tool	Context Retriever	opportunity_stage	pipeline_value	Feeds Pipeline Calculator
CRM-BRAN-NOCE-12	Task Matcher	Matching Node	Matches smartbriefing to existing tasks	task,keywords,open,task_context,bundle	match_xxxx,matched_task_id	Embedding Similarity Tool	Email Intent Classifier(Meeting Outcome Analyzer)	opportunity_stage	None	Feeds Pipeline Calculator
CRM-BRAN-NOCE-13	Task Creator	CRM Update Node	Create new task using template	task_id,task_name,template_id,library,entity_id	task_id	CRM Writer Tool	Task Creator	opportunity_stage	None	Use CRACD logic
CRM-BRAN-NOCE-14	Log and Node	Decision Node	Logs node activity and creates log entry	node_id,activity	log_record	Logging	Task Creator	opportunity_stage	None	Triggers when match_logic is set
CRM-BRAN-NOCE-15	State Machine Evaluuator	Decision Node	Evaluates state entry/exit rules and emits stage update	company,record_interaction,record_activity,log_pipeline_metrics	updated_stage_state_transition_log	State Machine Evaluator Tool	Interaction Updater(Deal Value Estimator)(State Checker)	opportunity_stage	None	Creates state transition activation
CRM-BRAN-NOCE-16	State Machine Node	Schedule Node	Periodic check to mark opportunities STALE	company_id,record_id,actvity_id,stage,window	stale_flag,recd_stage	State Checker Tool	State Checker	is_stale	opportunity_stage	Contracts state-machine logic: authenticative stage writer
CRM-BRAN-NOCE-17	State Machine Node	Task Node	Periodic check to mark opportunities UNSTALE	company_id,record_id,actvity_id,stage,window	stale_flag,recd_stage	State Checker Tool	State Checker	is_stale	opportunity_stage	Triggers ANNT-HTTPA transactions on schedule
CRM-BRAN-NOCE-18	JSON Formatter	Parser Node	Converts draft into CRM-compliant JSON schema	draft_body,draft_subject,draft_attachments	formatted_draft	JSONFormatterTool	Response Draft	None	None	None
CRM-BRAN-NOCE-19	Response Draft	Parser Node	Drafts reply using template and context	context,topic,arrival,lettertemplate_id	formatted_draft	JSONFormatterTool	Response Draft	opportunity_stage	None	Validates fields before send
CRM-BRAN-NOCE-20	CRM Logging	LLM Analyzer	Forwards message to CRM	content,topic,arrival,lettertemplate_id	CRM Logging	CRM Logging Tool	Context Retriever	opportunity_stage	None	User friendly exception message templates
CRM-BRAN-NOCE-21	CRM Logging	Data Retriever	Forwards message to CRM	content,topic,arrival,lettertemplate_id	CRM Logging	CRM Logging Tool	Context Retriever	opportunity_stage	None	Temporary Address = User Subspace

edge_id	from_node	to_node	condition	description				
CRM-BRAIN-EDGES-1	CRM-BRAIN-NODE-1	CRM-BRAIN-NODE-2	ALWAYS	Route incoming event to appropriate CRM Brain chain				
CRM-BRAIN-EDGES-2	CRM-BRAIN-NODE-2	CRM-BRAIN-NODE-3	ALWAYS	Retrieve all required context before decision-making				
CRM-BRAIN-EDGES-3	CRM-BRAIN-NODE-2	CRM-BRAIN-NODE-4	event_type = "email_processed"	Begin email decision chain				
CRM-BRAIN-EDGES-4	CRM-BRAIN-NODE-2	CRM-BRAIN-NODE-6	event_type = "meeting_processed"	Begin meeting decision chain				
CRM-BRAIN-EDGES-5	CRM-BRAIN-NODE-3	CRM-BRAIN-NODE-4	chain = "email"	Add enriched context to email intent classifier				
CRM-BRAIN-EDGES-6	CRM-BRAIN-NODE-3	CRM-BRAIN-NODE-6	chain = "meeting"	Add enriched context to meeting analyzer				
CRM-BRAIN-EDGES-7	CRM-BRAIN-NODE-4	CRM-BRAIN-NODE-5	ALWAYS	Classified email intent triggers response decision				
CRM-BRAIN-EDGES-8	CRM-BRAIN-NODE-5	CRM-BRAIN-NODE-8	action IN ("draft_reply")	no_reply		escalate)	Record interaction regardless of reply logic	
CRM-BRAIN-EDGES-9	CRM-BRAIN-NODE-5	CRM-BRAIN-NODE-12	requires_reply = true	Check if email matches existing task				
CRM-BRAIN-EDGES-10	CRM-BRAIN-NODE-5	CRM-BRAIN-NODE-7	stage_signal_present = true	Advance stage based on email content				
CRM-BRAIN-EDGES-11	CRM-BRAIN-NODE-6	CRM-BRAIN-NODE-8	ALWAYS	Record meeting interaction				
CRM-BRAIN-EDGES-12	CRM-BRAIN-NODE-6	CRM-BRAIN-NODE-7	stage_signals_present = true	Determine if meeting advances stage				
CRM-BRAIN-EDGES-13	CRM-BRAIN-NODE-6	CRM-BRAIN-NODE-12	task_keywords_present = true	Check if meeting maps to an existing task				
CRM-BRAIN-EDGES-14	CRM-BRAIN-NODE-12	CRM-BRAIN-NODE-13	match_score < threshold	Create new task from template				
CRM-BRAIN-EDGES-15	CRM-BRAIN-NODE-12	CRM-BRAIN-NODE-14	match_score >= threshold	Log matched task and continue				
CRM-BRAIN-EDGES-16	CRM-BRAIN-NODE-8	CRM-BRAIN-NODE-9	ALWAYS	Interaction update triggers opportunity update				
CRM-BRAIN-EDGES-17	CRM-BRAIN-NODE-10	CRM-BRAIN-NODE-11	ALWAYS	Calculate pipeline value after deal value set				
CRM-BRAIN-EDGES-18	CRM-BRAIN-NODE-11	CRM-BRAIN-NODE-9	ALWAYS	Update opportunity with pipeline value				
CRM-BRAIN-EDGES-19	CRM-BRAIN-NODE-7	CRM-BRAIN-NODE-9	stage_update_decision = true	Update stage and close likelihood				
CRM-BRAIN-EDGES-20	CRM-BRAIN-NODE-9	CRM-BRAIN-NODE-14	ALWAYS	Log opportunity updates				
CRM-BRAIN-EDGES-21	CRM-BRAIN-NODE-13	CRM-BRAIN-NODE-14	ALWAYS	Log new task creation				
CRM-BRAIN-EDGES-22	CRM-BRAIN-NODE-14	CRM-BRAIN-NODE-1	log_event = "new_trigger"	Re-enter CRM Brain when logs trigger downstream logic				
CRM-BRAIN-EDGES-23	CRM-BRAIN-NODE-3	CRM-BRAIN-NODE-10	employee_count_available = true	Compute deal value when employee data exists				
CRM-BRAIN-EDGES-24	CRM-BRAIN-NODE-10	CRM-BRAIN-NODE-15	ALWAYS	Deal value outputs feed state machine evaluator				
CRM-BRAIN-EDGES-25	CRM-BRAIN-NODE-8	CRM-BRAIN-NODE-15	ALWAYS	Interactions feed state machine evaluator				
CRM-BRAIN-EDGES-26	CRM-BRAIN-NODE-15	CRM-BRAIN-NODE-9	updated_stage != current_stage	State Machine Evaluator issues authoritative stage update to Opportunity Updater				
CRM-BRAIN-EDGES-27	CRM-BRAIN-NODE-16	CRM-BRAIN-NODE-15	ALWAYS	Stale Checker triggers state machine evaluation for STALE updates				
CRM-BRAIN-EDGES-28	CRM-BRAIN-NODE-17	CRM-BRAIN-NODE-15	email_send_status = "sent"	Email send confirmation feeds stage evaluator				
CRM-BRAIN-EDGES-29	CRM-BRAIN-NODE-6	CRM-BRAIN-NODE-15	ALWAYS	Meeting outcomes feed state evaluator				
CRM-BRAIN-EDGES-30	CRM-BRAIN-NODE-4	CRM-BRAIN-NODE-12	ALWAYS	Email classifier triggers Task Matcher as part of Task Chain				

edge_condition_id	edge_id	condition_expression	description	true_path	false_path
CRM-BRAIN-EC-1	CRM-BRAIN-EDGES-3	event_type = "email_processed"	Check if the event is an email-processing event	CRM-BRAIN-NODE-4	Skip Email Chain
CRM-BRAIN-EC-2	CRM-BRAIN-EDGES-4	event_type = "meeting_processed"	Check if the event is a meeting-processing event	CRM-BRAIN-NODE-6	Skip Meeting Chain
CRM-BRAIN-EC-3	CRM-BRAIN-EDGES-5	chain = "email"	Ensure context retrieval routes to email intent classifier	CRM-BRAIN-NODE-4	No-Op
CRM-BRAIN-EC-4	CRM-BRAIN-EDGES-6	chain = "meeting"	Ensure context retrieval routes to meeting analyzer	CRM-BRAIN-NODE-6	No-Op
CRM-BRAIN-EC-5	CRM-BRAIN-EDGES-9	requires_reply = true	If email requires reply → evaluate tasks	CRM-BRAIN-NODE-12	Skip Task Matcher
CRM-BRAIN-EC-6	CRM-BRAIN-EDGES-10	stage_signal_present = true	If email signals stage advancement → evaluate	CRM-BRAIN-NODE-7	No Stage Update
CRM-BRAIN-EC-7	CRM-BRAIN-EDGES-12	stage_signals_present = true	If meeting contains stage advancement signals → Stage Advancement Decision	CRM-BRAIN-NODE-7	Continue Chain
CRM-BRAIN-EC-8	CRM-BRAIN-EDGES-13	task_keywords_present = true	Check if meeting contains task-related signals → Task Matcher	CRM-BRAIN-NODE-12	Skip Task Matcher
CRM-BRAIN-EC-9	CRM-BRAIN-EDGES-14	match_score < threshold	If no task matches → create new task	CRM-BRAIN-NODE-13	CRM-BRAIN-NODE-14
CRM-BRAIN-EC-10	CRM-BRAIN-EDGES-15	match_score >= threshold	If matched task is found → log and continue	CRM-BRAIN-NODE-14	No-Op
CRM-BRAIN-EC-11	CRM-BRAIN-EDGES-23	employee_count_available = true	Compute deal value only when employee count exists	CRM-BRAIN-NODE-10	Skip Deal Value Estimator
CRM-BRAIN-EC-12	CRM-BRAIN-EDGES-19	stage_update_decision = true	Advance stage when decision is positive	CRM-BRAIN-NODE-9	Skip Stage Update
CRM-BRAIN-EC-13	CRM-BRAIN-EDGES-22	log_event = "new_trigger"	Re-enter CRM Brain from logs	CRM-BRAIN-NODE-1	End
CRM-BRAIN-EC-20	CRM-BRAIN-EDGES-24	deal_value > DEAL_THRESHOLD	If deal value exceeds threshold then qualifies	CRM-BRAIN-NODE-15	No-Op
CRM-BRAIN-EC-21	CRM-BRAIN-EDGES-27	no_activity_days >= STALE_WINDOW	Periodic stale detection marks STALE	CRM-BRAIN-NODE-15	No-Op
CRM-BRAIN-EC-22	CRM-BRAIN-EDGES-28	email_send_status = "sent"	Confirm outreach was sent and update state	CRM-BRAIN-NODE-15	Retry or mark failed
CRM-BRAIN-EC-23	CRM-BRAIN-EDGES-29	meeting_event_detected = true	Meeting detected → process meeting outcomes	CRM-BRAIN-NODE-15	No-Op
CRM-BRAIN-EC-24	CRM-BRAIN-EDGES-26	updated_stage != current_stage	Only write to CRM when stage changes	CRM-BRAIN-NODE-9	No-Op

chain_id	chain_name	description	entry_node	exit_node	nodes_in_chain	trigger_source	notes
CRM-BRAIN-C-1	Email Chain	Processes incoming emails and determines actions	CRM-BRAIN-NODE-3	CRM-BRAIN-NODE-14	CRM-BRAIN-NODE-3 CRM-BRAIN-NODE-4 CRM-BRAIN-NODE-5 CRM-BRAIN-NODE-19 CRM-BRAIN-NODE-18 CRM-BRAIN-NODE-17 CRM-BRAIN-NODE-8 CRM-BRAIN-NODE-15	Email Processor	Primary email workflow (ingest → classify → decide → draft → send → update → stage/evaluate)
CRM-BRAIN-C-2	Meeting Chain	Processes meeting transcripts and updates opportunity	CRM-BRAIN-NODE-3	CRM-BRAIN-NODE-14	CRM-BRAIN-NODE-3 CRM-BRAIN-NODE-6 CRM-BRAIN-NODE-7 CRM-BRAIN-NODE-8 CRM-BRAIN-NODE-9 CRM-BRAIN-NODE-15	Meeting Processor	Feeds sales stage advancement
CRM-BRAIN-C-3	Enrichment Chain	Triggered by enrichment updates or PEO detection	CRM-BRAIN-NODE-3	CRM-BRAIN-NODE-14	CRM-BRAIN-NODE-3 CRM-BRAIN-NODE-10 CRM-BRAIN-NODE-11 CRM-BRAIN-NODE-9 CRM-BRAIN-NODE-15	Enrichment Engine	Run when context/data changes
CRM-BRAIN-C-4	Task Chain	Creates or matches tasks based on signals	CRM-BRAIN-NODE-12	CRM-BRAIN-NODE-14	CRM-BRAIN-NODE-12 CRM-BRAIN-NODE-13	Email Chain/Meeting Chain	Uses task templates + embedding similarity
CRM-BRAIN-C-5	Pipeline Update Chain	Recomputes pipeline values after any opportunity change	CRM-BRAIN-NODE-10	CRM-BRAIN-NODE-14	CRM-BRAIN-NODE-10 CRM-BRAIN-NODE-11 CRM-BRAIN-NODE-9	Opportunity Updater	Updates core CRM metrics
CRM-BRAIN-C-6	Brain Re-Entry Chain	Handles log-triggered reactivation of CRM Brain	CRM-BRAIN-NODE-1	CRM-BRAIN-NODE-14	CRM-BRAIN-NODE-1 CRM-BRAIN-NODE-2	Event Log	Supports reactive/loop behavior
CRM-BRAIN-C-7	Outbound Outreach Chain	Prepare templates send outreach and evaluate	CRM-BRAIN-NODE-19	CRM-BRAIN-NODE-15	CRM-BRAIN-NODE-19 CRM-BRAIN-NODE-18 CRM-BRAIN-NODE-17 CRM-BRAIN-NODE-8 CRM-BRAIN-NODE-15	Email Pipeline	Used for automated outbound sequences
CRM-BRAIN-C-8	Inbound Response Chain	Process inbound responses and update state	CRM-BRAIN-NODE-4	CRM-BRAIN-NODE-15	CRM-BRAIN-NODE-4 CRM-BRAIN-NODE-5 CRM-BRAIN-NODE-8 CRM-BRAIN-NODE-15	Email Processor	Handles replies and escalations
CRM-BRAIN-C-9	Meeting Processing Chain	Calendar to transcript to outcomes to state	CRM-BRAIN-NODE-6	CRM-BRAIN-NODE-15	CRM-BRAIN-NODE-6 CRM-BRAIN-NODE-8 CRM-BRAIN-NODE-7 CRM-BRAIN-NODE-15	Calendar/Meeting Processor	Processes meetings and stage signals
CRM-BRAIN-C-10	State Checker Chain	Run stale check on opportunities and mark STALE	CRM-BRAIN-NODE-16	CRM-BRAIN-NODE-15	CRM-BRAIN-NODE-16 CRM-BRAIN-NODE-15	Scheduler	Daily/periodic stale evaluation; configurable window

tool_id	tool_name	tool_type	description	inputs	outputs	called_by_nodes	dependencies	notes
CRM-BRAIN-T-1	RAG Query Tool	Retrieval	Retrieves embeddings-based context from historical emails and documents	query.filters.opportunity_id	rag_context	CRM-BRAIN-NODE-3	Vector DB (Pinecone/Weaviate)	Must support 1-year email embedding dataset; uses sentence-transformers or OpenAI embeddings
CRM-BRAIN-T-2	KG Query Tool	Graph Retrieval	Retrieves structured data from global company knowledge graph	entity_id,relationship_filters,depth	kg_context	CRM-BRAIN-NODE-3	Neo4j/Knowledge Graph DB	Part of Ahans's KG infra; supports multi-hop traversal
CRM-BRAIN-T-3	Opportunity KG Retriever	Graph Retrieval	Retrieves opportunity-specific subgraph and relationship context	opportunity_id,depth	opportunity_kg_context	CRM-BRAIN-NODE-3	Neo4j/Knowledge Graph DB	Matches Ahans's opportunity-level KG nodes; includes deal history and stakeholder relationships
CRM-BRAIN-T-4	CRM Pipeline Lookup Tool	Data Retrieval	Fetches comprehensive pipeline information from CRM with filtering	company_id,opportunity_id,fields	crm_record_context	CRM-BRAIN-NODE-20	Airtable API / Supabase	Temporary database; later replaced by Supabase; supports multiple databases
CRM-BRAIN-T-5	CRM Pipeline Tool	Data Write	Updates contacts and opportunity updates in CRM	payload_table_name,record_id	record_id,write_status	CRM-BRAIN-NODE-8;CRM-BRAIN-NODE-9;CRM-BRAIN-NODE-13	OpenAI API / Claude API	Supports funnel with CRM identifiers; handles upserts (Upable = Supabase)
CRM-BRAIN-T-6	LLM Classifier	LLM	Classifies email intent into actionable categories with confidence scores	email_text,context_classification_schema	intend_to_email_requires_reply_keywords,confidence_score	CRM-BRAIN-NODE-4	OpenAI API / Claude API	Align with email pipeline's classifier style; supports custom taxonomy; few-shot prompting
CRM-BRAIN-T-7	LLM Summarizer	LLM	Summarizes meeting transcripts and extracts actionable sales signals	meeting_text,context_template_id	summary_key_signals,action_items	CRM-BRAIN-NODE-6	OpenAI API / Claude API	Modeled after MCP Meeting Summarizer; outputs structured JSON
CRM-BRAIN-T-8	Embedding Similarity Tool	IR / Matching	Finds cosine similarity scores between content and task templates	keywords,open_tasks,threshold	match_score,matched_task_id,similarity_details	CRM-BRAIN-NODE-12	Vector DB / Sentence Transformers	Same method as Customer Success RAG; configurable similarity threshold (default: 0.75)
CRM-BRAIN-T-9	Python Compute Tool	Computation	Performs numeric calculations for deal value and pipeline metrics	inputs,formula,type	computed_value,metadata	CRM-BRAIN-NODE-10;CRM-BRAIN-NODE-11	Python Runtime	Standard Lang/Graph compute utility; supports custom formulas and validation
CRM-BRAIN-T-10	EmailSenderTool	API Tool	Sends or queues email with retry logic and approval workflow	draft_id,in_response_to,from,to,cc,bcc,subject,body,attachments,requires_approval	email_send_status,email_id,timestamp	CRM-BRAIN-NODE-17	SendGrid API / Gmail API	Supports SendGrid/Gmail; approves queue for sensitive emails; bounce handling
CRM-BRAIN-T-11	JSONParserTool	Parser	Formats and validates output as CRM-compliant JSON schema	draft_body,draft_subject,draft_attachments,schema_version	formatter,draft_validation_errors	CRM-BRAIN-NODE-18	JSON Schema Validator	Validates required fields; supports schema versioning; returns validation errors
CRM-BRAIN-T-12	System Log Tool	System Logging	Writes logs to file or EventHub; supports log rotation and log retention	node_id,log_level,log_message	log,records	CRM-BRAIN-NODE-14	Logging Service / Database	Logs for Backend services; logs to CRM-BRAIN-NODE-14; enables audit trail
CRM-BRAIN-T-13	State Timeline Evaluator Tool	Decision	Executes state-driven rules and suggests stage transitions	company_id,record_id,interaction,record_activity,pipeline_metrics,current_stage	stage_update_state_transition_log_transition_rationale,confidence	CRM-BRAIN-NODE-19	State Timeline Config / Rules Engine	State timeline engine; authorization for decision engine; deterministic rules with override capability; logs all transitions
CRM-BRAIN-T-14	State Checker Tool	Scheduler	Computes inactivity windows and renews state flags with recommendations	last_activity_at_threshold,days_opportunity_stage	state_flag_no_activity,days_recommended_action	CRM-BRAIN-NODE-16	Scheduler Service / Cron	Run periodic job (daily/weekly); configurable window by stage; suggests re-engagement actions
CRM-BRAIN-T-15	Response Decision Engine	Decision Logic	Determines appropriate action based on intent and context	intent_class,context_bundle,opportunity_id,stage_business_rules	action,next,stage,reason,confidence	CRM-BRAIN-NODE-5	Rules Engine	Acts like MCP Tools context engine; supports configurable decision trees
CRM-BRAIN-T-16	Stage Advancement Engine	Decision Logic	Evaluates stage progression rules based on sales signals	email_signals,meeting_signals,opportunity_id,record_stage_rules	stage_update_decision,recommended_stage,rationale,required_actions	CRM-BRAIN-NODE-7	Rules Engine / CRM Config	Uses HubSpot-like human decision logic; supports custom stage gates and validation
CRM-BRAIN-T-17	Response Composer Chain	LLM Chain	Drafts contextual email replies using templates and tone guidelines	context_bundle,email_text,template_id,tone_profile	draft_subject,draft_body,draft_attachments	CRM-BRAIN-NODE-19	OpenAI API / Claude API	Uses few-shot examples and tone templates; supports multiple writing styles; personalized variables

prompt_id	node_id	node_name	prompt_type	description	prompt_template	inputs	outputs	model_config	notes	
CRM-BRAIN-P-1	CRM-BRAIN-NODE-4	Email Intent Classifier	LLM Classification	Classify email intent and determine required actions	You are the CRM Email Intent Classifier. Given the email text and context, classify intent, requires_reply, urgency, etc. EMAIL_TEXT (email_text) CONTEXT (context_bundle) Return ONLY valid JSON with this exact structure: { "intent_class": "query/object/confirmation/request/proposal_response/meeting_request/other", "urgency_level": "low/medium/high/urgent", "requires_reply": "true/false", "keywords": ["relevent keywords for task matching"] }	email_text,context_bundle	intent_class,requires_reply,urgency_level,objection_signals,task_keywords	temperature=0.3,max_tokens=500,response_format=json	Matches tone and behavior of MCP Tools classifiers; few-shot examples should be added in production	
CRM-BRAIN-P-2	CRM-BRAIN-NODE-5	Response Decision (Email)	LLM Decision	Decide if system should draft a reply or take another action	You are the CRM Brain Response Decision Engine. Based on the email intent, opportunity stage, and context, decide INTENT CLASSIFICATION (intent_class) CONTEXT (context_bundle) OPPORTUNITY_STAGE (opportunity_stage) Analyze the situation and return ONLY valid JSON: { "action": "draft_email/pickup/schedule/tech_more_context/create_task", "recommended": "next_stage", "stage": "name or null", "rationale": "text or null" }				temperature=0.2,max_tokens=400,response_format=json	Implements 'let like it would in HubSpot' rule; decision tree should align with business rules
CRM-BRAIN-P-3	CRM-BRAIN-NODE-6	Meeting Outcome Analyzer	LLM Summarization	Summarize meeting transcript and extract actionable outcome	You are the CRM Meeting Outcome Analyzer. Extract key information from the meeting transcript. MEETING_SUMMARY (meeting_summary) CONTEXT (context_bundle) Extract and return ONLY valid JSON: { "outcomes": "[list of decisions made]", "stage": "[phrases indicating stage progression or regression]", "key": "[list of key takeaways]", "objections": "[list of objections mentioned]", "notes": "[list of comments made by either party]", "rationale": "[list of rationale provided for each decision]" }	meeting_summary,context_bundle	outcomes.stage_signals.task_keywords,objections_raised,next_steps_agreed	temperature=0.3,max_tokens=800,response_format=json	Structured output ensures deterministic stage decisions; should extract sentiment and engagement level	
CRM-BRAIN-P-4	CRM-BRAIN-NODE-7	Stage Advancement Decision LLM Decision		Decide whether opportunity stage should be updated	You are the CRM Stage Advancement Engine. Determine if the sales stage should change based on signals. EMAIL_SIGNALS (email_signals) MEETING_SIGNALS (meeting_signals) CURRENT OPPORTUNITY (opportunity_record) Evaluate and return ONLY valid JSON: { "stage_update_decision": "advancing/regress/maintain/mark_state", "new_stage": "name or null", "rationale": "text or null", "confidence": "0.0-1.0", "required_actions": "[list of actions needed before stage change]" }	email_signals,meeting_signals,opportunity_record	stage_update_decision,recommended_stage,rationale,confidence,required_actions	temperature=0.2,max_tokens=600,response_format=json	Mirrors human decision-making; should reference stage gate requirements	
CRM-BRAIN-P-5	CRM-BRAIN-NODE-8	Interaction Updater	LLM Formating	Summarize interaction and prepare interaction payload	You are the Interaction Record Formatter. Create a clean summary for CRM storage. CONTENT (content) METADATA (metadata) Produce ONLY valid JSON matching the Interactions table schema: { "sender": "email or name", "text": "text", "summary": "2-3 sentence summary", "history": "list of previous interactions with this partner", "sentiment": "probabilistic/aggressive", "timestamp": "ISO 8601 format", "metadata": {} }	content,metadata	interaction_payload	temperature=0.3,max_tokens=500,response_format=json	Optional summarization depending on node logic; should preserve key details without verbatim quotes	
CRM-BRAIN-P-6	CRM-BRAIN-NODE-9	Opportunity Updater	LLM Logic	Resolve opportunity updates based on decisions	You are the Opportunity Update Engine. Merge multiple update signals into a unified payload. STAGE DECISION (stage_update_decision) DEAL VALUE UPDATE (deal_value_update) LIKELIHOOD UPDATE (likelihood_update) INTERACTION ID (interaction_id) Return ONLY valid JSON with fields to update: { "stage": "new stage or null", "deal_value": "float or null", "close_probability": "0.0-1.0 or null", "confidence": "0.0-1.0", "text": "interaction_id", "update_reason": "update reason", "update_explanation": "update explanation" }	stage_update_decision,deal_value_update,likelihood_update,interaction_id	opportunity_update_payload	temperature=0.1,max_tokens=400,response_format=json	Works before CRM Writer Tool execution; ensures data consistency and validation	
CRM-BRAIN-P-7	CRM-BRAIN-NODE-10	Deal Value Estimator	LLM Reasoning	Estimate deal value based on heuristics and historical data	You are the Deal Value Estimator. Calculate expected deal value using available data. COMPANY PROFILE: - Employee Count (employee_count) - Industry (industry) HISTORICAL DATA: (history) PRICING CONSTANTS: (constants) Return ONLY valid JSON: { "deal_value": "numeric estimate", "confidence": "0.5-1.0", "method": "description of approach used", "assumptions": "[list of key assumptions]", "notes": "[list of notes or caveats]", "version": "1.0.0.1 format" }	employee_count,industry,constants,history	deal_value,confidence,calculation_method,assumptions,value_range	temperature=0.2,max_tokens=500,response_format=json	Can run hybrid programmatic + LLM; should use industry benchmarks and company size bands	
CRM-BRAIN-P-8	CRM-BRAIN-NODE-11	Pipeline Calculator	LLM Explanation	Explain pipeline value calculation for audit trail	You are the Pipeline Calculator. Explain the pipeline value computation clearly. DEAL VALUE (deal_value) CLOSE PROBABILITY (probability) Calculate pipeline_value = deal_value * probability and return ONLY valid JSON: { "pipeline_value": "calculated result", "deals": "list of deals contributing to calculation", "timestamp": "ISO 8601 format" }	deal_value,probability	pipeline_value_explanation,timestamp	temperature=0.1,max_tokens=300,response_format=json	Used only for human-readable logs and audit trail; deterministic calculation	
CRM-BRAIN-P-9	CRM-BRAIN-NODE-12	Task Matcher	LLM Classification	Identify if interaction matches existing open task	You are the Task Matcher. Determine if this interaction relates to an existing task. TASK KEYWORDS FROM INTERACTION (task_keywords) OPEN TASKS: (open_tasks) CONTEXT (context_bundle) Analyze semantic similarity and return ONLY valid JSON: { "match_score": 0.0-1.0, "matched_task_id": "task_id or null", "matched_task": "task description or null", "similarities": "list of match scores", "alternative_matches": "[task_id, score] 0.0-1.0 }" }	task_keywords,open_tasks,context_bundle	match_score,matched_task_id,similarity_details,alternative_matches	temperature=0.2,max_tokens=400,response_format=json	Uses same logic as Customer Success RAG matcher; threshold typically 0.75 for positive match	
CRM-BRAIN-P-10	CRM-BRAIN-NODE-13	Task Creator	LLM Template	Create a new task from template library when no match exists	You are the CRM Task Template Filler. Generate a new task using the appropriate template. INTENT CLASSIFICATION (intent_class) TASK TEMPLATE LIBRARY: (task_template_library) ENTITY IDS: (entity_ids) Select the best template and fill it with context. Return ONLY valid JSON: { "title": "task title", "description": "detailed task description", "body": "body of the task (instructions/parameters)", "priority": "low/medium/high", "due": "due date or null", "assigned_to": "user_id or null", "assigned_by": "company_id or null", "parent_task_id": "parent_task_id or null" }	intent_class,task_template_library,entity_ids	task_payload	temperature=0.3,max_tokens=500,response_format=json	Ensures standard task structure; templates should include best practices and SLAs	

CRM-BRAIN-P-11	CRM-BRAIN-NODE-14	Logging Node	LLM Formatter	Format structured logs for Event and Automation logs	<pre>You are the CRM Brain Logger. Create a structured log entry for audit and re-entry: NODE NAME: [node_name] ENVIRONMENT: [environment] PAYLOAD: [payload] Return ONLY valid JSON: [{"node_name": "name", "level": "INFO", "message": "execution/decision/update/error", "payload": {}, "timestamp": "2024-01-15T10:00:00Z", "severity": "InfoOrWarning", "trace_id": "unique identifier for this chain execution"}]</pre>	node_name.event.payload	log_record	temperature=0.1,max_tokens=400,response_format=json	Critical for Brain Re-Entry chain; enables debugging and audit compliance
CRM-BRAIN-P-12	CRM-BRAIN-NODE-19	Response Drafter	LLM Generation	Draft contextual email reply using templates and tone guidelines	<pre>You are the CRM Response Composer. Draft a professional email reply. CONTEXT: [context_bundle] ORIGINAL EMAIL: [email_id] TEMPLATE ID: [template_id] TONE PROFILE: [tone_profile] Draft ONLY valid JSON: [{"body": "Dear [customer_name],\n- Addresses the sender's needs directly\n- Maintains a professional and formal tone\n- Includes relevant context and next steps\n- Follows template structure\nReturn ONLY valid JSON: [{"subject": "Email subject line", "body": "Full email body with proper formatting", "tags": "List of tags used in the email if any", "tone_used": "description of applied tone", "personalization_applied": "(list of personalization elements used)"}]}</pre>	context_bundle_email_text_template_id_tone_profile	draft_subject,draft_body,draft_attachments,tone_used,personalization_applied	temperature=0.7,max_tokens=1000,response_format=json	Uses few-shot examples and tone templates; supports multiple writing styles; should use personalization variables
CRM-BRAIN-P-20	CRM-BRAIN-NODE-15	State Machine Evaluator	Decision Logic	Evaluate state machine rules and determine next stage	<pre>You are the CRM State Machine Evaluator. Apply deterministic rules to determine the correct opportunity stage. COMPANY RECORD: [company_record] INTERACTION RECORD: [interaction_record] ACTIVITY LOG: [activity_log] PIPELINE METRICS: [pipeline_metrics] CURRENT STAGE: [current_stage] Consult the canonical state machine rules and return ONLY valid JSON: [{"next_stage": "stage_name", "transition_type": "automatically/scheduled", "threshold": "threshold_value", "required_actions": "list of actions needed before or after transition", "confidence": "confidence_level", "override_allowed": true/false}]}]</pre>	company_record_interaction_record_activity_log_pipeline_metrics.current_stage	next_stage,transition_type,reason,required_actions,confidence,override_allowed	temperature=0.0,max_tokens=500,response_format=json	Authoritative stage decision engine; must be deterministic (no ambiguous outputs); logs all transitions
CRM-BRAIN-P-21	CRM-BRAIN-NODE-16	State Checker	Explanation Logic	Explain state evaluation results for audit logging	<pre>You are the State Status Evaluator. Determine if an opportunity should be marked as stale. COMPANY RECORD: [company_record] LAST ACTIVITY: [last_activity_id] THRESHOLD (DAYS): [threshold_days] OPPORTUNITY STAGE: [opportunity_stage] Evaluate inactively and return ONLY valid JSON: [{"stale_flag": true/false, "no_activity_days": duration, "threshold_reached": reached_threshold, "recommended_action": "re-engage/archive/reassign/none", "urgency": "immediate/high"}]}</pre>	company_record.last_activity_id,threshold_days,opportunity_stage	stale_flag,no_activity_days,explanation,recommended_action,urgency	temperature=0.1,max_tokens=400,response_format=json	Used for audit/logging: thresholds vary by stage; should suggest re-engagement tactics

state_id	state_name	description	entry_rules	exit_rules	field_name	field_key	field_type	notes
S-0001	NEW_PROSPECT	Company entered system, no evaluation started	Created record OR ingested from 5500 or VC portal; (opportunity_stage) blank or = 'New Prospect'	Enrichment completes AND required fields present OR first outreach sent OR intro received	Opportunity Stage	opportunity_stage	single_select	Default starting state
S-0002	ENRICHING	Enrichment pipeline gathering data (scrapers, enrichment)	Enrichment event triggered OR required outreach fields missing	All enrichment fields updated AND deal value computed	Opportunity Stage	opportunity_stage	single_select	Runs scraper & enrichment jobs
S-0003	QUALIFIED	Prospect meets qualification thresholds	employee_count > threshold AND industry in target list AND benefit_score >= threshold	Outreach initiated (auto/manual)	Opportunity Stage	opportunity_stage	single_select	Requires deal_value > X
S-0004	UNQUALIFIED	Prospect deemed not fit	Employee count < min OR industry not target OR low score OR manual disqualification	Manual override or new data triggers re-eval	Opportunity Stage	opportunity_stage	single_select	Usually terminal until manual override
S-0005	INTRO_RECEIVED	A VC or partner introduction arrived	Email Intent Classifier returns intent:introduction OR introduction record created	Intro email processed and interaction logged; Response decision executed	Opportunity Stage	opportunity_stage	single_select	High-priority path
S-0006	NEEDS_OUTREACH	Ready for outreach but no email sent	Qualified OR Intro received OR enrichment complete AND contact exists	Outreach email sent OR task created for owner	Opportunity Stage	opportunity_stage	single_select	Holds until outreach
S-0007	OUTREACH_SENT	Outreach email delivered, waiting for response	Email Sender confirms send	Inbound reply detected OR follow-up triggers OR timeout window exceeded	Opportunity Stage	opportunity_stage	single_select	Track send status & delivery
S-0008	ACTIVE_CONVO	Two-way communication in progress	Inbound reply detected OR meeting scheduled OR salesperson engages	Meeting scheduled OR qualification call OR follow-up required	Opportunity Stage	opportunity_stage	single_select	Main active selling state
S-0009	MEETING_SCHEDULED	Meeting on the calendar	Calendar event detected OR meeting created via portal	Meeting transcript processed and outcomes extracted	Opportunity Stage	opportunity_stage	single_select	Requires calendar metadata
S-0010	QUALIFICATION_CALL	Qualification call completed	Meeting Outcome Analyzer returns qualification signals	Proposal required OR follow-up OR disqualification	Opportunity Stage	opportunity_stage	single_select	Signal-driven decision
S-0011	PROPOSAL_SENT	Proposal has been sent to prospect	Proposal document uploaded AND email sent	Prospect responds OR negotiation begins	Opportunity Stage	opportunity_stage	single_select	Requires proposal metadata
S-0012	FOLLOW_UP_NEEDED	Follow-up required after outreach/call/proposal	Meeting or email outcome flags follow-up	Follow-up email sent OR task completed	Opportunity Stage	opportunity_stage	single_select	Task-driven state
S-0013	STALE	Prospect inactive / cold	No response for X days AND no activity	Manual restart OR inbound event OR new VC intro	Opportunity Stage	opportunity_stage	single_select	X configurable (e.g., 30 days)
S-0014	CLOSING	Contract being finalized	Proposal accepted OR negotiation stage entered	Signed contract received	Opportunity Stage	opportunity_stage	single_select	Precedes won/lost.
S-0015	CLOSED_WON	Deal converted - won	Signed contract recorded	(Terminal)	Opportunity Stage	opportunity_stage	single_select	Terminal: customer now onboarded
S-0016	CLOSED_LOST	Deal lost	Loss reason logged OR prospect declines	Manual revival only	Opportunity Stage	opportunity_stage	single_select	Can be revived to NEW_PROSPECT with manual action

transition_id	from_state	to_state	condition	allowed_by	notes
T-0001	NEW_PROSPECT	ENRICHING	enrichment_event = true	System (Enrichment Chain)	Default path after ingest
T-0002	NEW_PROSPECT	NEEDS_OUTREACH	quick_qualification = true AND contact_email != NULL	CRM Brain Decision	Skip enrichment when minimal data passes threshold
T-0003	ENRICHING	QUALIFIED	deal_value > DEAL_THRESHOLD AND benefit_score >= MIN_SCORE	Deal Value Estimator	Automated qualification
T-0004	ENRICHING	UNQUALIFIED	deal_value < MIN_THRESHOLD OR industry_exclusion = true	System	Auto-disqualify
T-0005	QUALIFIED	NEEDS_OUTREACH	owner_assigned = true OR auto_outreach_rule = true	Response Decision / Email Pipeline	Ready for outreach
T-0006	NEEDS_OUTREACH	OUTREACH_SENT	email_send_status = 'sent'	Email Sender Tool	Occurs on successful send
T-0007	OUTREACH_SENT	ACTIVE_CONVO	inbound_reply_detected = true	Email Intent Classifier	Reply moves to active conversation
T-0008	OUTREACH_SENT	FOLLOW_UP_NEEDED	no_reply_days >= follow_up_window	Scheduler / Email Pipeline	Automated follow-up
T-0009	ACTIVE_CONVO	MEETING_SCHEDULED	calendar_event_created = true	Meeting Processor	Triggered when meeting booked
T-0010	MEETING_SCHEDULED	QUALIFICATION_CALL	meeting_outcomes.contains('qualified') = true	Meeting Outcome Analyzer	Qualification detected in meeting
T-0011	QUALIFICATION_CALL	PROPOSAL_SENT	sales_action = 'send_proposal'	Opportunity Updater	Proposal generation
T-0012	PROPOSAL_SENT	CLOSING	proposal_accepted = true	Sales Rep / System	Move to negotiation / closing
T-0013	CLOSING	CLOSED_WON	contract_signed = true	Sales Ops	Terminal - won
T-0014	CLOSING	CLOSED_LOST	contract_rejected = true	Sales Ops	Terminal - lost
T-0015	ANY	STALE	no_activity_days >= STALE_WINDOW	Scheduler	Applies from many states (configurable)
T-0016	UNQUALIFIED	NEW_PROSPECT	manual_override = true	Sales Manager	Allow re-evaluation
T-0017	CLOSED_LOST	NEW_PROSPECT	revival_manual = true	Sales Manager	Revive lost opportunities manually
T-0018	INTRO_RECEIVED	NEEDS_OUTREACH	intro_valid = true AND contact_email != NULL	Response Decision	High-priority outreach after intro
T-0019	NEEDS_OUTREACH	ACTIVE_CONVO	inbound_reply_before_send = true	Email Intent Classifier	Edge case: inbound starts before outreach

condition_id	related_state	condition_description	false_path	remediation
B-0001	NEW_PROSPECT	Missing company_id or domain	Remain NEW_PROSPECT; do not auto-enrich	Flag for manual enrichment; create enrichment task
B-0002	ENRICHING	Scraper error or rate-limited	Remain ENRICHING; enrichment incomplete	Retry with backoff; surface error in Enrichment Log; notify owner
B-0003	QUALIFIED	Missing contact_email OR contact role unknown	Cannot move to NEEDS_OUTREACH	Run contact enrichment; create manual research task
B-0004	UNQUALIFIED	Hard disqualification flag (blacklist)	Remain UNQUALIFIED	Allow only manual override by Admin
B-0005	INTRO_RECEIVED	Missing intro metadata (vc_id or source)	Hold in INTRO_RECEIVED; do not auto-outreach	Request missing metadata from partner or mark for manual review
B-0006	NEEDS_OUTREACH	Email template required fields missing	Do not send outreach; block transition to OUTREACH_SENT	Use template fallback values; notify owner; require manual send
B-0007	OUTREACH_SENT	Email bounced or delivery failed	Transition to NEEDS_OUTREACH or create task	Verify contact email; attempt resend; mark as invalid if permanent bounce
B-0008	MEETING_SCHEDULED	Missing calendar metadata (start_time, attendees)	Do not process meeting transcript	Request corrected calendar entry; manual attach transcript
B-0009	PROPOSAL_SENT	Missing proposal attachment or pricing	Block transition to CLOSING	Require upload of proposal doc; notify owner
B-0010	STALE	Hard 'Do Not Contact' or compliance hold	Remain STALE	Respect compliance; mark permanent if required
B-0011	CLOSING	Missing legal documents or required approvals	Block finalization	Pause closing; notify Legal/Finance owners
B-0012	CLOSED_LOST	Missing loss reason	Cannot archive properly	Require loss_reason field before finalization; prompt owner

logical_concept	field_name	field_key	table	field_type	notes
Opportunity Stage	Opportunity Stage	opportunity_stage	CRM - Opportunities	single_select	Primary state field (holds values from StateMachine)
Deal Value	Deal Value	deal_value	CRM - Opportunities	currency	Computed by Deal Value Estimator (python)
Close Probability	Close Probability	close_probability	CRM - Opportunities	percent	Updated by Stage Advancement Decision / Pipeline Calculator
Last Activity	Last Activity	last_activity_at	CRM - Opportunities	datetime	Updated on any interaction or event
Owner	Owner	owner_id	CRM - Opportunities	linked_record (Users)	Assigned salesperson / owner
Contact Email	Contact Email	primary_contact_email	CRM - Contacts	email	Used for outreach sends
Intro Status	Intro Status	intro_status	CRM - Introductions	single_select	Tracks intro lifecycle (Needs Outreach / Processed)
Enrichment Status	Enrichment Status	enrichment_status	CRM - Companies	single_select	Values: pending/complete/error
Employee Count	Employee Count	employee_count	CRM - Companies	number	Used in Deal Value Estimator
Benefit Score	Benefit Score	benefit_score	CRM - Companies	number	Derived from Glassdoor/scorecard
VC Signal	VC Signal	vc_signal	CRM - Companies	boolean	True if company is in a VC portfolio or introduction exists
Email Send Status	Email Send Status	email_send_status	CRM - Communications	single_select	Values: queued/sent/failed/bounced
Interaction ID	Interaction ID	interaction_id	CRM - Interactions	text	Created by Interaction Updater
Proposal Document	Proposal Document	proposal_doc	CRM - Opportunities	attachment	Proposal file reference
Stale Flag	Stale Flag	is_stale	CRM - Opportunities	boolean	Set by scheduler when no_activity_days >= STALE_WINDOW
Loss Reason	Loss Reason	lost_reason	CRM - Opportunities	multi_line_text	Required for CLOSED_LOST