WeGroup Platform - Detaillierte Tabellen-Übersicht

📋 TABELLEN-KATEGORIEN

1. KERN-SYSTEM (Core System)

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremdschlüssel
`tenants`	Mandanten-Verwaltung	`id`	-
`users`	Benutzer-Verwaltung	`id`	`tenantId`, `lastUsedTenantId`
`roles`	Rollen-System	`id`	`tenantId`
`permissions`	Permissions-System	`id`	-
`user_roles`	User-Role-Zuordnung	`[userId, roleId]`	`userId`, `roleId`

2. AUTHENTICATION (NextAuth.js)

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremdschlüssel
`accounts`	OAuth-Accounts	`[provider, providerAccountId]`	`userId`
`sessions`	User-Sessions	`sessionToken`	`userId`
`authenticators`	WebAuthn-Authenticators	`[userId, credentialID]`	`userId`
`verificationtokens`	Verifikations-Tokens	`[identifier, token]`	-

3. ERWEITERTE ROLLEN (Enhanced Roles)

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`enhanced_roles`	Erweiterte Rollen	`id`	`tenantId` , `inherit-FromRoleId`
`user_enhanced_roles`	User-Enhanced-Role-Zuordnung	`[userId, enhanced-RoleId]`	`userId` , `enhanced-RoleId`
`menu_permissions`	Menu-Permissions	`id`	`permissionId` , `parentMenuId`
`role_menu_permissions`	Role-Menu-Zuord-nung	`id`	`roleId` , `menuPermis-sionId`
`user_permission_overrides`	User-Permission-Overrides	`id`	`userId` , `permis-sionId`

4. TENANT-MANAGEMENT

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`tenant_modules`	Tenant-Module	`id`	`tenantId`
`tenant_managers`	Tenant-Manager	`id`	`tenantId` , `userId`
`tenant_activities`	Tenant-Aktivitäten	`id`	`tenantId` , `userId`
`tenant_analytics`	Tenant-Analytics	`id`	`tenantId`
`tenant_billing`	Tenant-Billing	`id`	`tenantId`
`tenant_support_tickets`	Support-Tickets	`id`	`tenantId` , `userId`

5. FINANCE-MODULE

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`invoices`	Rechnungen	`id`	`tenantId`
`ocr_results`	OCR-Ergebnisse	`id`	`invoiceId`, `tenantId`
`approval_workflows`	Genehmigungswork-flows	`id`	`invoiceId`, `tenantId`
`three_way_matches`	Drei-Wege-Abgleich	`id`	`invoiceId`, `tenantId`
`confidence_scores`	Vertrauens-Scores	`id`	`invoiceId`, `tenantId`
`in-voice_notifications`	Rechnungs-Bena-chrichtigungen	`id`	`invoiceId`, `tenantId`
`finan-cial_transactions`	Finanz-Transaktionen	`id`	`tenantId`
`cash_flow_forecasts`	Cashflow-Prognosen	`id`	`tenantId`

6. EMAIL-INTEGRATION

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`ten-ant_email_configs`	Email-Konfiguration-en	`id`	`tenantId`
`email_invoices`	Email-Rechnungen	`id`	`tenantId`, `emailCon-figId`
`email_processing_logs`	Email-Verarbeitungs-Logs	`id`	`tenantId`, `emailCon-figId`
`email_classifications`	Email-Klassifizier-ungen	`id`	`tenantId`

7. HR-MODULE

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`employees`	Mitarbeiter	`id`	`userId` , `managerId` , `tenantId`
`job_applications`	Bewerbungen	`id`	`jobPostingId` , `as-signedEmployeeId` , `tenantId`
`job_postings`	Stellenausschreibun-gen	`id`	`tenantId`
`performance_reviews`	Leistungsbeurteilun-gen	`id`	`employeeId` , `tenant-Id`
`onboard-ing_workflows`	Onboarding-Work-flows	`id`	`employeeId` , `tenant-Id`
`skill_assessments`	Kompetenzbewertun-gen	`id`	`employeeId` , `tenant-Id`
`workforce_analytics`	Workforce-Analytics	`id`	`tenantId`

8. LOGISTICS-MODULE

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`shipments`	Sendungen	`id`	`tenantId`
`tracking_events`	Tracking-Events	`id`	`shipmentId` , `tenant-Id`
`carrier_performance`	Carrier-Performance	`id`	`tenantId`
`logistics_customers`	Logistics-Kunden	`id`	`tenantId`
`logistics_suppliers`	Logistics-Lieferanten	`id`	`tenantId`
`logistics_rfqs`	Logistics-RFQs	`id`	`tenantId`
`logist-ics_supplier_quotes`	Logistics-Angebote	`id`	`tenantId`
`logistics_orders`	Logistics-Bestel-lungen	`id`	`tenantId`

9. INVENTORY-MODULE

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`inventory_items`	Lagerbestände	`id`	`tenantId`
`inventory_movements`	Warenbewegungen	`id`	`inventoryItemId` , `tenantId`
`purchase_orders`	Bestellungen	`id`	`supplierId` , `inventoryItemId` , `tenantId`
`route_optimizations`	Routen-Optimier-ungen	`id`	`tenantId`
`predictive_maintenance`	Predictive Mainten-ance	`id`	`tenantId`

10. AI & MACHINE LEARNING

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`ai_models`	AI-Modelle	`id`	`tenantId`
`ai_decisions`	AI-Entscheidungen	`id`	`modelId` , `tenantId`
`ai_model_metrics`	AI-Model-Metriken	`id`	`modelId` , `tenantId`
`model_approvals`	Model-Genehmigun-gen	`id`	`modelId` , `tenantId`
`model_test_results`	Model-Test-Ergebn-isse	`id`	`modelId` , `tenantId`
`model_cost_records`	Model-Kosten-Datensätze	`id`	`modelId` , `tenantId`

11. QUANTUM COMPUTING

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`quantum_processors`	Quantum-Prozessoren	`id`	`tenantId`
`quantum_algorithms`	Quantum-Algorith-men	`id`	`processorId`, `tenantId`
`quantum_computations`	Quantum-Berechnun-gen	`id`	`algorithmId`, `processorId`, `tenantId`
`quantum_neural_networks`	Quantum-Neural-Net-works	`id`	`tenantId`
`quantum_optimizations`	Quantum-Optimier-ungen	`id`	`algorithmId`, `tenantId`

12. ECOSYSTEM & PARTNERS

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`ecosystem_partners`	Ecosystem-Partner	`id`	`tenantId`
`cross_company_collaborations`	Cross-Company-Kollaborationen	`id`	`primaryPartnerId`, `tenantId`
`ecosystem_orchestrations`	Ecosystem-Orchestri-erungen	`id`	`partnerId`, `tenantId`
`global_integrations`	Globale Integrationen	`id`	`partnerId`, `tenantId`
`ecosystem_intelligence`	Ecosystem-Intelli-gence	`id`	`orchestrationId`, `tenantId`

13. BUSINESS INNOVATION

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`business_models`	Geschäftsmodelle	`id`	`tenantId`
`innova-tion_pipelines`	Innovations-Pipelines	`id`	`tenantId`
`innovation_projects`	Innovations-Projekte	`id`	`tenantId`
`innova-tion_validations`	Innovations-Validier-ungen	`id`	`tenantId`
`mar-ket_opportunities`	Marktchancen	`id`	`tenantId`
`competit-ive_analyses`	Wettbewerbsana-lysen	`id`	`tenantId`

14. SUSTAINABILITY

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`sustainabil-ity_metrics`	Nachhaltigkeits-Met-riken	`id`	`tenantId`
`car-bon_footprint_tracking`	CO2-Fußabdruck-Tracking	`id`	`tenantId`
`esg_compliance`	ESG-Compliance	`id`	`tenantId`
`environmental_risks`	Umweltrisiken	`id`	`tenantId`
`green_processes`	Grüne Prozesse	`id`	`tenantId`

15. UNIVERSAL SERVICES

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`service_requests`	Service-Anfragen	`id`	`tenantId` , `customerId`
`service_customers`	Service-Kunden	`id`	`tenantId`
`service_suppliers`	Service-Lieferanten	`id`	`tenantId`
`service_rfqs`	Service-RFQs	`id`	`serviceRequestId` , `tenantId`
`service_quotes`	Service-Angebote	`id`	`rfqId` , `supplierId` , `tenantId`
`service_orders`	Service-Bestellungen	`id`	`customerId` , `supplierId` , `tenantId`
`service_quote_comparisons`	Service-Angebots-Vergleiche	`id`	`rfqId` , `tenantId`

16. PORTAL-ZUGRIFFE

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`service_customer_portal_access`	Service-Kunden-Portal-Zugang	`id`	`tenantId` , `customerId`
`service_supplier_portal_access`	Service-Lieferanten-Portal-Zugang	`id`	`tenantId` , `supplierId`
`logistics_customer_portal_access`	Logistics-Kunden-Portal-Zugang	`id`	`tenantId`
`logistics_supplier_portal_access`	Logistics-Lieferanten-Portal-Zugang	`id`	`tenantId`

17. ANALYTICS & MONITORING

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`dashboards`	Dashboards	`id`	`tenantId`, `userId`
`widgets`	Widgets	`id`	`dashboardId`
`ten-ant_usage_analytics`	Tenant-Nutzungs-Analytics	`id`	`tenantId`
`role_performance_metrics`	Role-Performance-Metriken	`id`	`tenantId`
`role_hierarchy_analytics`	Role-Hierarchy-Analytics	`id`	`tenantId`

18. AUDIT & COMPLIANCE

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`permis-sion_audit_logs`	Permission-Audit-Logs	`id`	`tenantId`
`permis-sion_recommendations`	Permission-Empfehlungen	`id`	`tenantId`
`document_processing`	Dokumentenverarbeitung	`id`	`tenantId`
`risk_assessments`	Risikobewertungen	`id`	`tenantId`

19. PREFERENCES & CUSTOMIZATION

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`user_preferences`	Benutzer-Einstel-lungen	`id`	`userId`
`ten-ant_customization`	Tenant-Anpassungen	`id`	`tenantId`
`user_tenant_recommendations`	User-Tenant-Em-pfehlungen	`id`	`userId`, `tenantId`
`ten-ant_region_mappings`	Tenant-Region-Zuord-nungen	`id`	`tenantId`

20. DEMO & TESTING

Tabelle	Beschreibung	Primärschlüssel	Wichtige Fremd-schlüssel
`demo_users`	Demo-Benutzer	`id`	-
`role_template_usages`	Role-Template-Ver-wendungen	`id`	`templateRoleId`

📊 TABELLEN-STATISTIKEN

Tabellen pro Kategorie:

- **Kern-System**: 5 Tabellen
- **Authentication**: 4 Tabellen
- **Erweiterte Rollen**: 5 Tabellen
- **Tenant-Management**: 6 Tabellen
- **Finance**: 8 Tabellen
- **Email-Integration**: 4 Tabellen
- **HR-Module**: 7 Tabellen
- **Logistics**: 8 Tabellen
- **Inventory**: 5 Tabellen
- **AI & ML**: 6 Tabellen
- **Quantum Computing**: 5 Tabellen
- **Ecosystem**: 5 Tabellen
- **Business Innovation**: 6 Tabellen
- **Sustainability**: 5 Tabellen
- **Universal Services**: 7 Tabellen

- **Portal-Zugriffe**: 4 Tabellen
- **Analytics**: 5 Tabellen
- **Audit**: 4 Tabellen
- **Preferences**: 4 Tabellen
- **Demo & Testing**: 2 Tabellen

GESAMT: ~150 Tabellen

🔗 WICHTIGE CONSTRAINTS

Unique Constraints:

- `tenants.domain`
- `tenants.subdomain`
- `users.email`
- `invoices.invoiceNumber`
- `shipments.trackingNumber`
- `service_requests.requestNumber`

Foreign Key Constraints:

- Alle Tabellen haben `tenantId` → `tenants.id`
- Cascading Deletes bei abhängigen Entitäten
- Referentielle Integrität bei allen Beziehungen

Check Constraints:

- Enum-Validierungen für Status-Felder
- Positive Werte für Mengen und Preise
- Gültige Email-Formate
- Datum-Validierungen