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### Introduction

This document outlines the terms and conditions under which NNIT can provide services under a given contract. The document does not cover a specific service delivery, but describes how the service can be ordered as one or more standard service packages and what is delivered. In other words, it describes the possible types of service that can be ordered and multiple choices can therefore exist for Availability targets etc. It will also usually contain multiple service packages and enhancing services that can be ordered in various combinations.

Any customer specific changes will be marked with green highlight. Please refer to section 3.1 to view how the customer specific changes differ from NNIT standard.

# Service Contract Terms

## Service Delivery Models

The following Standard Service Packages are available through this service.

The standard services and activities for these are described in section 1.4 Service Activity Matrix.

|  |  |  |
| --- | --- | --- |
| Name | Description | Charging Model |
| **Azure SQL** | Azure SQL refers to a framwork of Microsoft services that use the SQL Server database engine in the Azure Cloud:   * Database * Managed Instance * SQL Server   NNIT can provide any of these Michrosoft services at different levels of support:   * Full Operation * Unmanaged Operation * Only Backup Operation |  |
| **Full Operation** | Fully managed by NNIT Cloud Operations.  The underlaying operating system Windows Server on SQL Server on Azure Instances is fully monitored as well. |  |
| **Unmanaged Operation** | NNIT can deploy and provide basic configuration but customer is responsible for the SQL service. These are SQL resources that are visible in Azure portal but NNIT has no SLA on them. |  |
| **Only Backup Operation** | NNIT is responsible for backup and restore tasks only. |  |

## Optional Enhancing Services (not included)

|  |  |  |
| --- | --- | --- |
| Optional services subject to separate payment | | |
| Azure SQL Reports and Monitoring | This service supports both Databases and Database Managed Instance.   * Monitoring of all Azure databases accross subscriptions particularty the health and performance of databases including CPU utilization. * Creation of custom monitoring rules and alerts based on collected metrics which helps identifying issues at each layer of application stack.   Query reports – correlate the performance of any query through the query duration and query waits perspectives. |  |

## Service Utility

The following attributes and functionality are delivered through this service:

|  |  |  |
| --- | --- | --- |
| Utility | Description | Scope |
| Azure SQL Features | NNIT will opperate the Azure SQL enviromment in terms of relational database features like database state, user management, capacity, backup and restore according to the standard platform capabilities. Features can include but not be limited to jobs, SSAS,SSIS,SSRS are subject to specific agreement. | -Database  -Managed Instance  -SQL Server |
| SQL Server Components | Services with minimal or limited coverage (SSRS-Reporting Services and SSIS-Integration Services) can be provided as integral part of the operation.  Azure Analysis Services (SSAS) is offered as a sparate Azure Cloud service with minimal or limited coverage.  The | -Database  -Managed Instance  -SQL Server |
| Recovery model | The default recovery model for SQL Database and SQL Managed Instance is FULL and cannot be modified to any other recovery model as in on-premises recovery models. For SQL Server on Virtual Machines depends of the request while creating a new database. | -Database  -Managed Instance |
| Azure SQL Pricing | Each SQL Azure service is charged according to Microsoft Pricing offers.  Database and Managed Instance service tiers:   * General purpose tier * Business critical tier * Hyperscale tier   SQL Server on Virtual Machines images:   * SQL Server 2019 on Windows Server 2019 (Default other images can be selected according to Azure portal offer) | -Database  -Managed Instance  -SQL Server |
| SQL Server  Releases | Both the SQL Server managed instances and Azure database are always kept at the highest stable version of SQL Server as part of the Microsofts platform responsibility unless the instance is manually installed with a specific user configuration (SQL Server) | -Database  -Managed Instance |
| Azure SQL Configuration | A standard configuration for all three Azure SQL services is provided by NNIT according to Microsoft best practices and taking customer specific requirements into consideration. | -Database  -Managed Instance  -SQL Server |
| Infrastructure as code (IaC) | Provisioning SQL infrastructure via IaC providing a consistent and standarazied Azure SQL enviromment and maintaining versioning | Database |
| Azure SQL Backup | Azure backups are fully automatic where Full backups are taken every 7 days, differential every 12 hours, and log backups every 5-10 min. This apply for Database and Azure managed instance which have this built-in feature.  Supported Azure Backup for SQL Database and Managed Instance:   * Data protected with automated backups * Long Term (LTR) configurable backup retention period * Point-in-time database restore capability * User can initiate backups from his side   For SQL Server the backups are done via Azure Backup and stored on the Recovery Services vault. NNIT will monitor the backups jobs in the portal. Email alerting is an option to facilitate better reaction time.  Supported Azure Backup for SQL Virtual machines:   * Creation of standard backups policies to backup databases regularly * Point in Time restores in one step * Email notifications * Azure RBAC for backup and restore management * Central management of backups and other workloads from a single dashboard * Support backups of SQL AlwaysON Availability Groups | -Database  -Managed Instance  -SQL Server |

## Service Activity Matrix

The following activities are always performed as part of the general service:

|  |  |  |
| --- | --- | --- |
| Activities/process | Descriptions | Frequency |
| Incident, Problem and Change Management | The three core ITIL Management disciplines are delivered according to the *NNIT IT Service Management* document, where each process is described in detail. The default service targets are stated respectively in the *Incident, Problem and Operational Change Management Targets* sections. | On-going |
| Availability Management | Availability Management is delivered according to the NNIT IT Service Management document, described in the Availability Management section.  Availability of the Azure SQL services is monitored via the Azure portal and though the native resource metrics.  The Database is a completely operated relational database for every Azure area with built-in geographic availability and Microsoft offers SLAs according to the different tier configurations and it is always around 99% and up. | On-going |
| Capacity Management | Capacity Management is delivered according to the NNIT IT Service Management document, described in the *Capacity Management Process* section.   * Proactive monitoring of server resources like CPU, Memory and disks * Proactive monitoring of database resources (agent jobs execution and general availability, database files)   Azure SQL Health Check solution can be used to avoid potential problems and take corrective actions | On-going |
| Continuity Management | Continuity Management is delivered according to the NNIT IT Service Management document, described in the *IT Service Continuity Management* section.  Azure SQL has a high-availability architecture to minimize local hardware and device faults, guaranteeing automatic recovery from these failures with up to 99.995% of SLA availability. | Depending on the Tier type |
| Configuration Management | Document and maintain a configuration item list approved by the customer | On-going |
| Patch Management | Managed by Microsoft. Database and SQL managed instances are always running on the latest stable version of SQL Server Database Engine and patched OS ensuring high availability. In case of SQL Server on Virtual Machines the OS will be part of the OS patching procedure and the SQL instance according to the NNIT CloudOperations procedure. Note that SQL Server installations in general must be at the highest service pack level to be covered by Microsoft support. | On-going |

## Requestable Services

The table below lists the various types of requestable services that are available and may be included in the Service Request Catalog. ‘Included’ means a specified number of requests are included in the standard service fee (see price catalogue), Unit indicates a fixed price per request while T&M stands for Time and Material, meaning the price of the request depends on the actual time spent performing the request (including any additional price for consumption of other resources).

All requests are eligible to be exposed through NNIT Service Request system.

|  |  |  |
| --- | --- | --- |
| Title | Description | Pay type |
| Applying customer scripts on customer databases | Run scripts issued by the customer or execute customer requested  Actions or troubleshooting functions that are not negotiated. | T&M |
| Customer requested Database Backup | In case of application upgrades when the process of upgrading goes wrong the customer could previously request a database backup | T&M |
| Basic Audit report | Instance, Database acceses and priviledges, failed logins. | Unit |
| User account management | Create, delete, reset passwords and unlock users | Unit |
| Security Patching | Apply for SQL Server | T&M |
| High Availability Configuration | Configure Always On Availability Group between two or more databases. |  |
| Activate Azure Defender for SQL | Protection against threats on the Azure SQL servers providing also alerts and recomendations | Unit |
| Set up Long-Term Retention backups | Configure backups retention policies | Unit |
| Retreiving information | Retrive configuration information like Collation, Creation Date, License, Location, Owner, State | Unit |
| Decomission of an Azure SQL service | Delete a database, retire an Instance | Unit |
| Service pack upgrade | Installing Service packs on SQL server on Azure VMs | T&M |
| SQL Database Migration Services | This service offer seamless migration from multiple database sources to Azure data platforms with minimal downtime.  It includes assessment report that is to be prepared first to provide recommendations which serves as guide through the changes required prior to performing a migration to Azure using Data Migration Assistant.  Remediation be performed if required after assessment reports including troubleshooting and optimization of the planned migration. Offers the option for offline and online migration.  Involves troubleshooting and optimization of the planned migration. Covers pre-migration, actual migration, and post-migration activities. | T&M |
| SQL Database Performance Tuning | • Discovering The Root Causes  • Finding Problematic Queries  • Fine Tuning the Queries  • Cleaning-up Indexes  • Avoid Overloading SQL Server  • Execution Plan Re-use  • Manage Transaction log, tempdb and memory | T&M |

## Prerequisites & Restrictions

The table below lists both what is required in order to deliver the service in terms of information or other customer input of any form (e.g. processes, data, personnel, expertise) and any restrictions that may apply.

|  |  |
| --- | --- |
| Prerequisite & Restriction | Description |
| Database Backup and Recovery | The entire database is always is restored and not specific objects |
| Access prerequisits | NNIT Cloud Operations should have the highest priviledge acceses in order to operate all Azure SQL services. The default authentication type should be with a domain account created in Azure Active Directory with the following roles:   * Instance level SysAdmin role * Azure AD server principals (logins) |
| Services windows | A schedule for stopping and starting cloud-based Azure SQL Server deployments can be negotiated with NNIT if necessary to minimize operating costs. |
| Notification services | For the notification services for SQL Server Agent scheduled jobs, the customer must provide a SMTP mail relay and is responsible for ensuring that recipient email addresses are valid. |

## Responsibility Matrix

This table indicates responsibilities in relation to this service between the service provider and customer according to the RACI model.

**R -** Responsible – Person working on activity

**A -** Accountable – Person with decision authority

**C** - Consulted – Key stakeholder who should be included in decision or work activity

**I** - Informed – Needs to know of decision or action

|  |  |  |  |
| --- | --- | --- | --- |
| Responsibility area | Description | NNIT | Customer |
| SQL service configuration | Deployment of the database platform and its entire configuration is a responsability of NNIT. Customer is responsible for specific or non standard configurations | **R/A** | **C/I** |
| Azure subscription | Subscription and consumption cost of the cloud services | **C/I** | **R/A** |
| Monitoring | NNIT is responsible for monitoring the SQL services and reacting to performance and stability of the SQL service. Customer is responsible for data manipulation that have impact on the SQL service. | **R/A** | **I** |
| SQL jobs | Customer is responsible for their own SQL Server jobs. | **R/A** | **oI** |

# Service Targets and Reporting

## Service Levels Targets

All targets can be reported to the customer on a monthly basis if nothing else is stated.

### Maintenance Windows

The service is subject to the normal maintenance windows as stated in the NNIT IT Service Management document.

### Service and Support Hours

|  |  |  |  |
| --- | --- | --- | --- |
| Service Level Target | Details | Basic | Advanced |
| Service Hours | The time period where the services covered are expected to be available and where Incident Management will be performed. | Danish Business Days, Monday through Friday 08:00 to 17:00 CET/CEST | 24 hours a day 7 days a week |
| **Full Operation Service** | **√** | **√** |
| **Only Backup Operation Service** | **√** | **n/a** |
| **Unmanaged Operation Service** | **√\*** | **n/a** |
| Change and general Request Fulfilment | The time period where the services covered is subject to Request fulfilment and Change Management. Activities related to other supporting processes are also covered in this category unless otherwise stated.  For details on targets for each process please refer to the NNIT IT Service Management document. | **√** | **√** |

**\***No reaction on alerts or operational tasks. Resources that are visible in Azure portal.

### Service Availability

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute | Description | | |
| Service Level Target | **Availability** | | |
| Description | Availability description | | |
| Specification | **Measurement**  Availability is measured <*explain in specific terms how availability is measured*>.  **Calculation**  Availability is measured as a percentage of the Agreed Service Time.  The Agreed Service Time is defined as Agreed Service Hours minus planned downtime (NNIT maintenance windows and Customer specific maintenance windows).  Availability percentage:   |  |  |  | | --- | --- | --- | |  | *(Agreed Service Time – Downtime) x 100* | *%* | | *Agreed Service Time* |   **Note:** Downtime is only included in the above calculation when it occurs within the Agreed Service Time. | | |
| Measurement Frequency |  | | |
| Prerequisite |  | | |
| Service Level Options | **Bronze** | **Silver** | **Gold** |
| Component Level Target | 98.0 % | 99.0 % | 99.5 % |
| **Full Operation Service** | n/a | n/a | For SQL server on VM 99.5 % and up.  For Databases and Managed Instances Microsoft SLA applies |
|  |  |  |  |

Customer and Service Changes

## Customer Changes

The following changes have been implemented to the standard service in order to meet customer specific requirements.

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Item | Customer Specific | NNIT Standard |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# SCT Change Log

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Change | Initials |
| 22/02/2021 | 0.a | 2.1 Service and Support Hours | DAJK |
| 25/02/2021 | 0.b | 2.1 Service availability, Responsibility matrix | DAJK |
| 08/03/2021 | 0.c | 1.2 Azure SQL Reports and Monitoring | DAJK |
|  |  |  |  |
|  |  |  |  |

# Template Change Log

## Delete before using SCT

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Change | Initials |
| 2016.04.15 | 1.0 | Template Change Log added - related to NC # 7554 | MLUI |
| 2017.02.15 | 1.1 | Added section 1.2 Optional Enhancing Service  Changed name of section Standard Service Request to Requestable Services, updated related table and introductory text  Removed 3rd party column from Responsibility Matrix | MLUI |
| 2019.06.10 | 1.2 | Updated document reference from NNIT Service Delivery Model to IT Service Management. | AQRS |
|  |  |  |  |
|  |  |  |  |