Best Practices: Transitioning to the Cloud

Hans Koorneef, Technical Director Project Delivery, EMEA
Best Practices: Transitioning to the Cloud

• Find out the advantages of transitioning your ProjectWise data sources to the Microsoft Azure cloud.

You will get the insights into how to optimize and learn about Bentley’s initial and ongoing support for this transition through migration and maintenance.
Bentley Responsibilities

• Operations Management
  – Proactive Monitoring
  – Reporting
  – SLA Tracking / Management
  – Maintain Systems Performance
  – Troubleshoot Server Issues
  – Disaster Recovery / Business Continuity
  – Upgrades to Server OS
  – Change Management
  – Systems Maintenance
  – Security Monitoring
  – Data Center Physical Security

• Service / Support Desk
  – Service Desk for

• System Deployment
  – Access & Security Management
  – Monitoring
  – Problems / Incidents
  – Updates / Upgrades
  – High Availability

• Infrastructure Management
  – Access & Security
  – Monitoring
  – Problems / Incidents
  – Patches / Updates
  – Capacity Planning

• Implementation
  – Continuity
  – Availability
  – Server Installations and Configurations
  – Server / Client Customizations
  – Global Project Coaching / Configuration
  – Project Health Checks
  – Adoption Services
  – Best Practices Coaching
  – Remote Caching Server Configuration
Reference Document

• System Overview
• Resource Requirements
• Licensing
• Installing Clients
• Technical Support
Datacenter Locations

- North Europe
- Middle East 2019
- North Central US
- Brazil South
- India South
- East US
- West US
- India Central
- Southeast Asia
- South Central US
- Japan East
- UK South
- East Asia
- Australia East
- Canada Central
- West Europe
- India South
- South Africa – Available Now
- West Europe
- Southeast Asia
- UK South
- Middle East 2019
- North Europe
- North Central US
- Brazil South
- India South
- East US
- West US
- India Central
- Southeast Asia
- South Central US
- Japan East
- East Asia
- Australia East
- Canada Central
- West Europe
- India South
- South Africa – Available Now
Performance Testing

- Help us determine a datacenter
- AzureSpeed.com
- Office Performance Profile
Caching Servers

- Configuration is included
- 10+ PW users in an office
- 5+ PW users in an office that work on the same projects and files
- Offices that have higher latency
- Offices with limited bandwidth
- Use of large files
- When better performance is needed
Service Level Agreement (SLA)

- Availability Commitment
- Service Credits
- Support Targets
- Business Continuity
- Limitations
- Termination of Service

Appendix: Service Level Agreement

The following Service Level Agreement (SLA) supplements the SELECT Agreement including Exhibit F Bentley Cloud Offerings to further define Availability and Support Credits to enable the achievement of Subscriber’s business objectives. In the event there is a conflict between this Appendix and the SELECT Agreement, this Appendix shall prevail.

Availability Commitment
Bentley shall provide System Availability per Table 1 below.

<table>
<thead>
<tr>
<th>Availability Commitment</th>
<th>System Availability Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.9%</td>
<td>24x7</td>
</tr>
</tbody>
</table>

Bentley shall measure performance against the Availability Commitment during a calendar month based on the following calculation:

\[
\text{Availability} = \frac{\text{Available Minutes} - \text{Unscheduled Downtime Minutes}}{\text{Available Minutes}}
\]

- Users will be given notice of Maintenance Windows which will be used to apply required patches to the IT infrastructure to ensure the continued security, availability and performance of the system. Wherever practical, Maintenance Windows will occur outside of Subscriber’s core business hours.
- The Availability Commitment excludes downtime due to Scheduled Maintenance.
- Unscheduled Downtime is calculated from the minute it is clearly reported by the Subscriber to Bentley until Bentley reports it fixed or mitigated. Bentley may subtract from the calculated downtime anytime waiting for a response from the Subscriber.
- Only “Critical” Incidents (Table 3 below) will be considered as Unscheduled Downtime in the above Availability calculation.
- Where Bentley provides multiple production services, identified by different Universal Resource Locators (URLs), the availability will be calculated for each URL.
Fully Qualified Domain Name (FQDN)

- -pw.bentley.com
- ACME-pw.bentley.com
- ACME-NA-pw.bentley.com
- ACME-US-pw.bentley.com
- ACME-TX-pw.bentley.com
- ProjectWise.ACME.com
Contacts

• Account Contact
• Outage Notification Contact
• Server Approval Contact
• Datasource Approval Contact
Implementing IMS Federation (SSO) with ProjectWise
Data Migration – Files & Database

• Transfer Client - Goodsync
  – Secure Connection
  – Direct Azure Storage Transfer
  – Schedule Jobs
  – Parallel Threads
  – Delta Transfer
How GoodSync Works

ProjectWise Servers running On-premise

PW Explorer Client

Storage Area Files

SQL Database Backup

How GoodSync Works

ProjectWise Servers running in Azure Cloud

Azure Temp Storage

GoodSync

Bentley runs GoodSync jobs to push files from Temp Storage to actual server in Azure

Storage Area Files

Bentley runs GoodSync job to push database to temp storage and then restores/overwrites the database

Bentley runs GoodSync job to push files from local Storage area(s) to Azure temp storage

Another GoodSync job runs on-premise to push DB backup to temp storage

SQL Database Restored

PW Explorer Client
Go Live Migration

• 5:00pm Stop On Premise Service
  – Kick off GoodSync Delta
  – SQL or Backup

• Smaller datasources (0 to 2TB)
  – Friday Night

• Medium datasources (2TB to 10TB)
  – Saturday Noon

• Large datasources (10TB+)
  – ????

• Massive datasource Options (e.g. Storage Area)

• Oracle adds several hours to the database convert
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