Wolkenbildung und Wettervorhersage: Cloud-Anwendungen im Produktiveinsatz

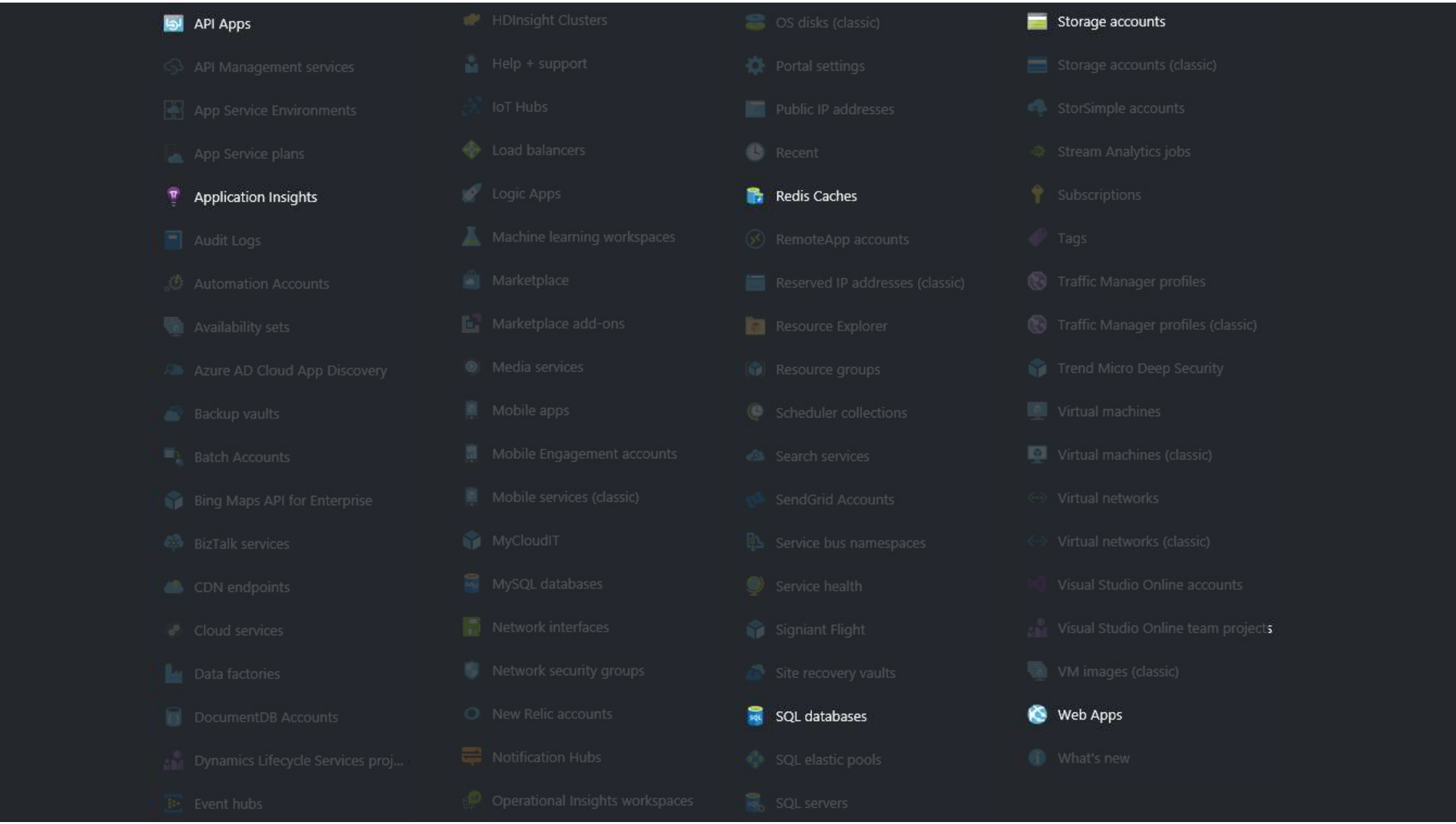
Philipp Pendelin | softaware gmbh


soft aware
Aware of your ideas.
Developing your software.

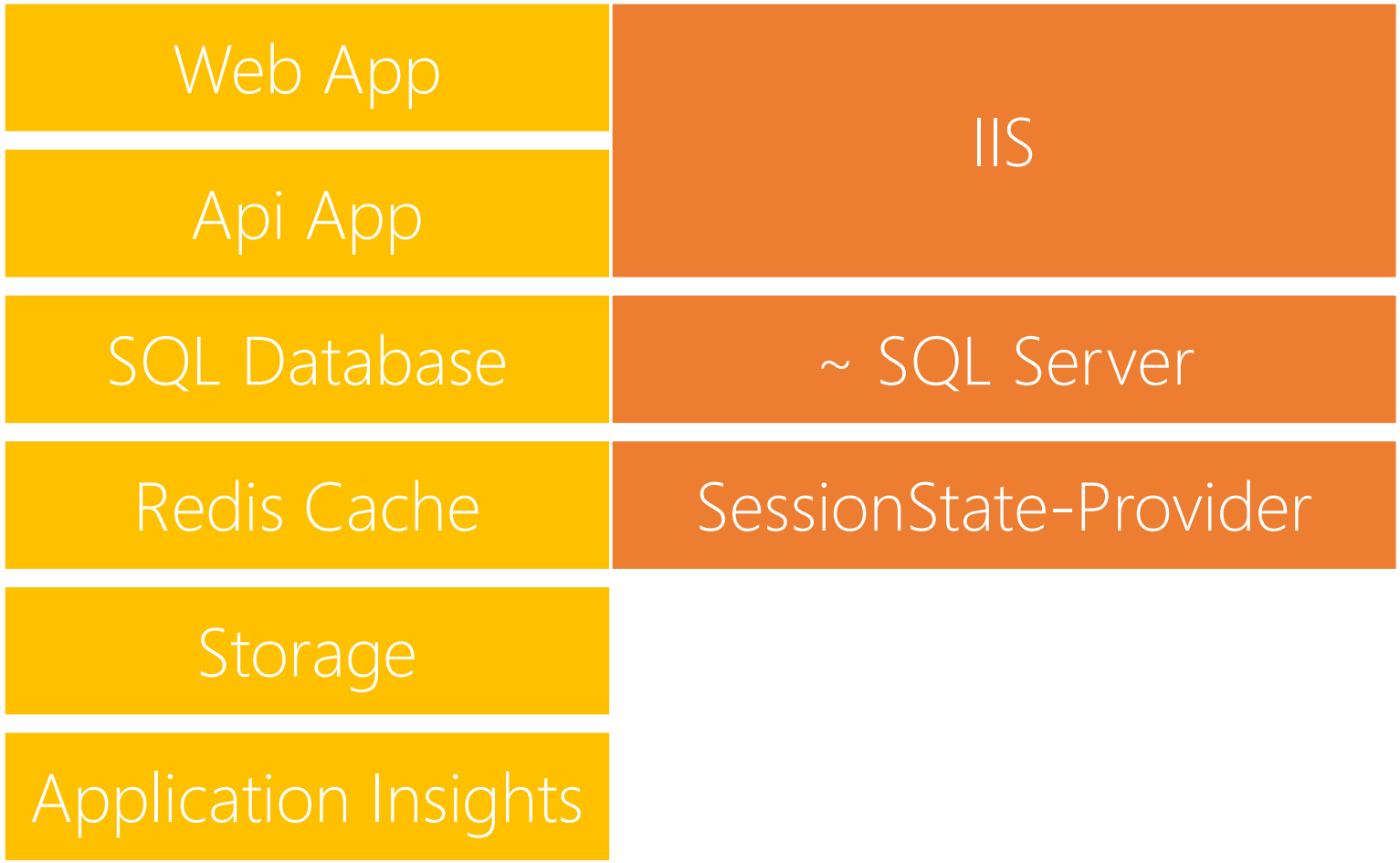
Cloud-(Web-)Anwendungen im Produktiveinsatz

- Azure-Services und Architekturüberlegungen
- Organisation des Azure-Portals
- Deployment
- Continuous Integration
- Scaling
- Rechteverwaltung
- Kostenüberblick
- Monitoring

Azure Services und Architektur-Überlegungen


API Apps
API Management services
App Service Environments
App Service plans
Application Insights
Audit Logs
Automation Accounts
Availability sets
Azure AD Cloud App Discovery
Backup vaults
Batch Accounts
Bing Maps API for Enterprise
BizTalk services
CDN endpoints
Cloud services
Data factories
DocumentDB Accounts
Dynamics Lifecycle Services proj...
Event hubs
HDInsight Clusters
Help + support
IoT Hubs
Load balancers
Logic Apps
Machine learning workspaces
Marketplace
Marketplace add-ons
Media services
Mobile apps
Mobile Engagement accounts
Mobile services (classic)
MyCloudIT
MySQL databases
Network interfaces
Network security groups
New Relic accounts
Notification Hubs
Operational Insights workspaces
OS disks (classic)
Portal settings
Public IP addresses
Recent
Redis Caches
RemoteApp accounts
Reserved IP addresses (classic)
Resource Explorer
Resource groups
Scheduler collections
Search services
SendGrid Accounts
Service bus namespaces
Service health
Signiant Flight
Site recovery vaults
SQL databases
SQL elastic pools
SQL servers
Storage accounts
Storage accounts (classic)
StorSimple accounts
Stream Analytics jobs
Subscriptions
Tags
Traffic Manager profiles
Traffic Manager profiles (classic)
Trend Micro Deep Security
Virtual machines
Virtual machines (classic)
Virtual networks
Virtual networks (classic)
Visual Studio Online accounts
Visual Studio Online team projects
VM images (classic)
Web Apps
What's new

Komponenten in Azure und On-Premise



Architektur-Überlegungen

- Skalierbarkeit von Beginn an mitdenken
- Auswirkungen von mehreren Instanzen
  - Statische Variablen gelten pro Instanz → Vermeidung?
  - Session gilt pro Instanz → Redis Cache (Kosten!)
  - Dateien nicht lokal am Webserver speichern → zB Blob-Storage
- Auslagerung von Tasks auf Worker
  - Queues ermöglichen deutlich bessere Skalierung abhängig von der Last
- Performanceoptimierung ist Geld wert.
  - Mit realistischen Datenmengen testen
  - Mit kleinen Instanzen starten

Organisation des Azure-Portals

Organisieren von Azure-Ressourcen

- ##delete
- alt
- budgetplanung - Kopie - Kopie.xlsx
  Autoren: Roman Schacherl
- budgetplanung - Kopie.xlsx
  Autoren: Roman Schacherl
- budgetplanung.xlsx
  Autoren: Roman Schacherl
- budgetplanung-final.xlsx
  Autoren: Roman Schacherl
- budgetplanung-final_scr.xlsx
  Autoren: Roman Schacherl
- budgetplanung-final_skd.xlsx
  Autoren: Roman Schacherl
- budgetplanung-final_skd-neu.xlsx
  Autoren: Roman Schacherl
- budgetplanung-final2.xlsx
  Autoren: Roman Schacherl
- budgetplanung-final3.xlsx
  Autoren: Roman Schacherl

Enterprise Agreements

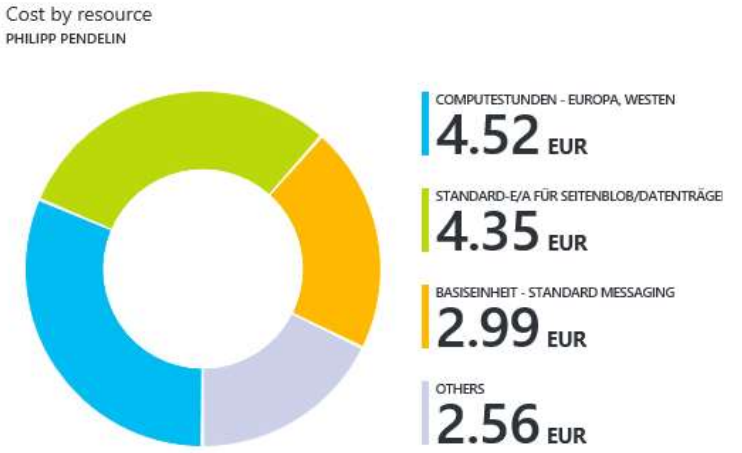
Pay-as-you-go Subscriptions

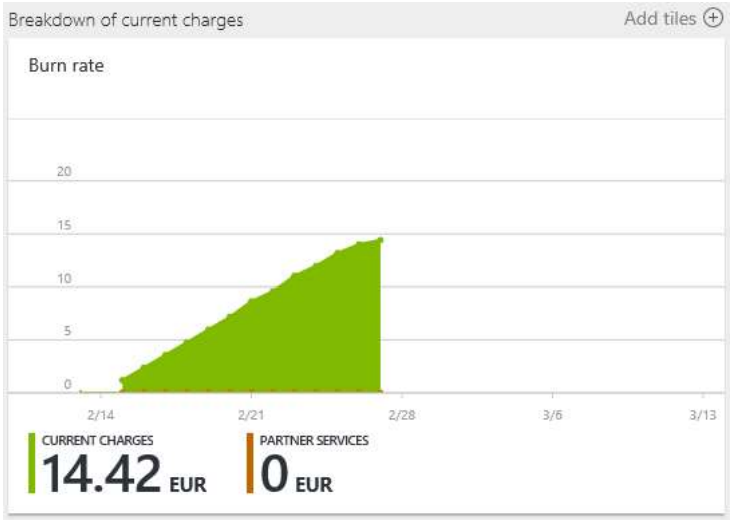
Abrechnung

Dev

Resource Groups

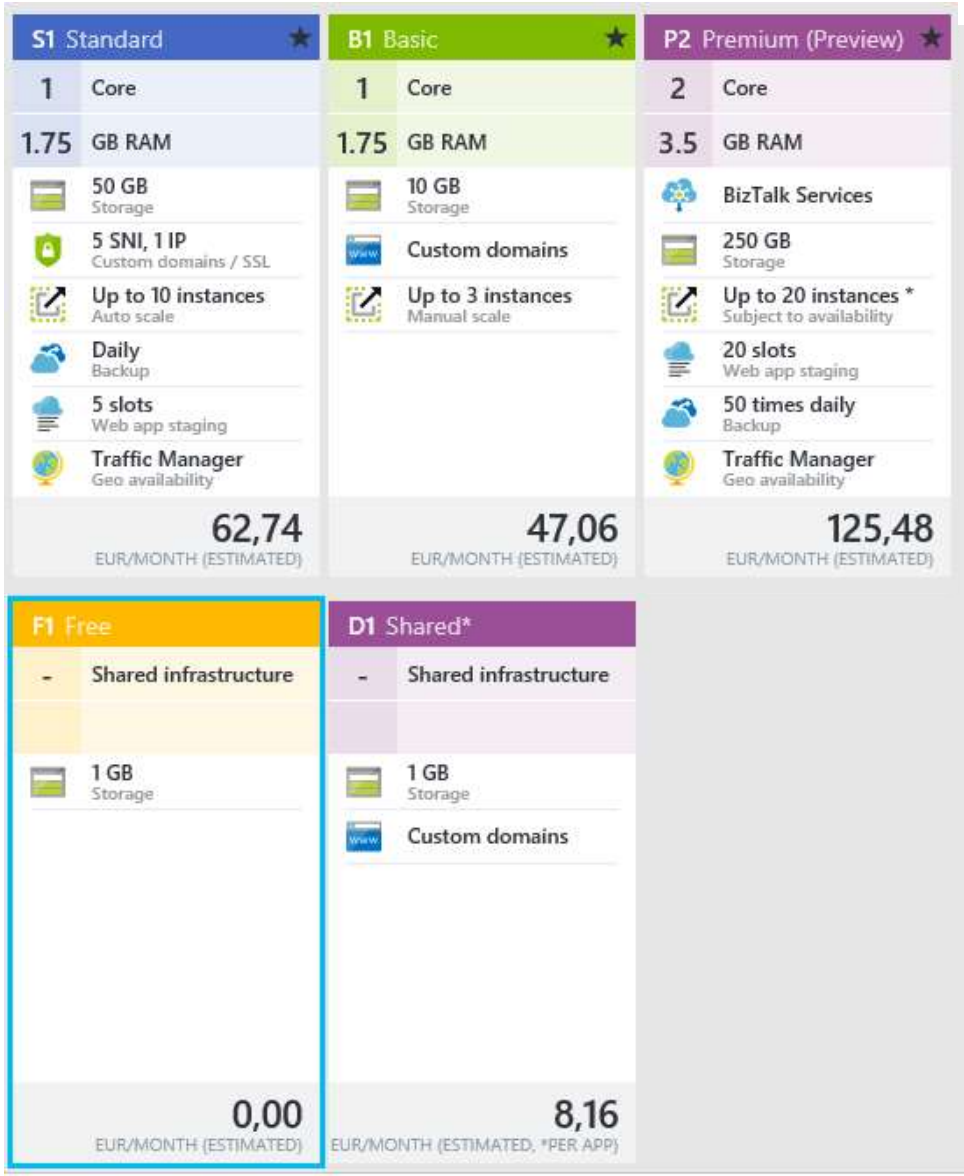
- Alle Komponenten einer Applikation
- Deployment, Update, Löschen in einer Operation
- Ein Template für Prod/Test/Dev
- User Management
- Monitoring





App Service Plans

- „Hostingmodell“
- Gemeinsame Kapazitäten für Azure App Services (Web, Mobile, Logic, API)
- Ein großer App Service Plan vs. mehrere kleine
  - Gemeinsam skalieren?
  - Monitoring?
  - Kosten?




Enterprise Agreement
Department
Account
Subscription
Resource Group
App Service Plan

Anforderungen an den Betrieb

Anforderungen an den Betrieb

~1.000.000 Dollar bei 15 Minuten Downtime

http://smallbiztrends.com/2013/08/amazon-down-custom-error-page.html

Anforderungen an den Betrieb

„Zero Downtime“

Anforderungen an den Betrieb

„High Throughput“

Anforderungen an den Betrieb

„Short release cycles“

Anforderungen an den Betrieb

- Was bedeuten diese Anforderungen?
  - Lokale Redundanz (mehrere Instanzen)
  - Möglicherweise geografische Redundanz (mehrere Rechenzentren)
  - Hoher Anspruch an die Netzwerk-Infrastruktur
  - Spezielles Tooling (Load Balancing, Failover, Replication)
  - Build-Automatisierung
  - Rechteverwaltung

  →Hoher Aufwand für Infrastruktur-Setup

  →Bedarf der nötigen Kompetenzen

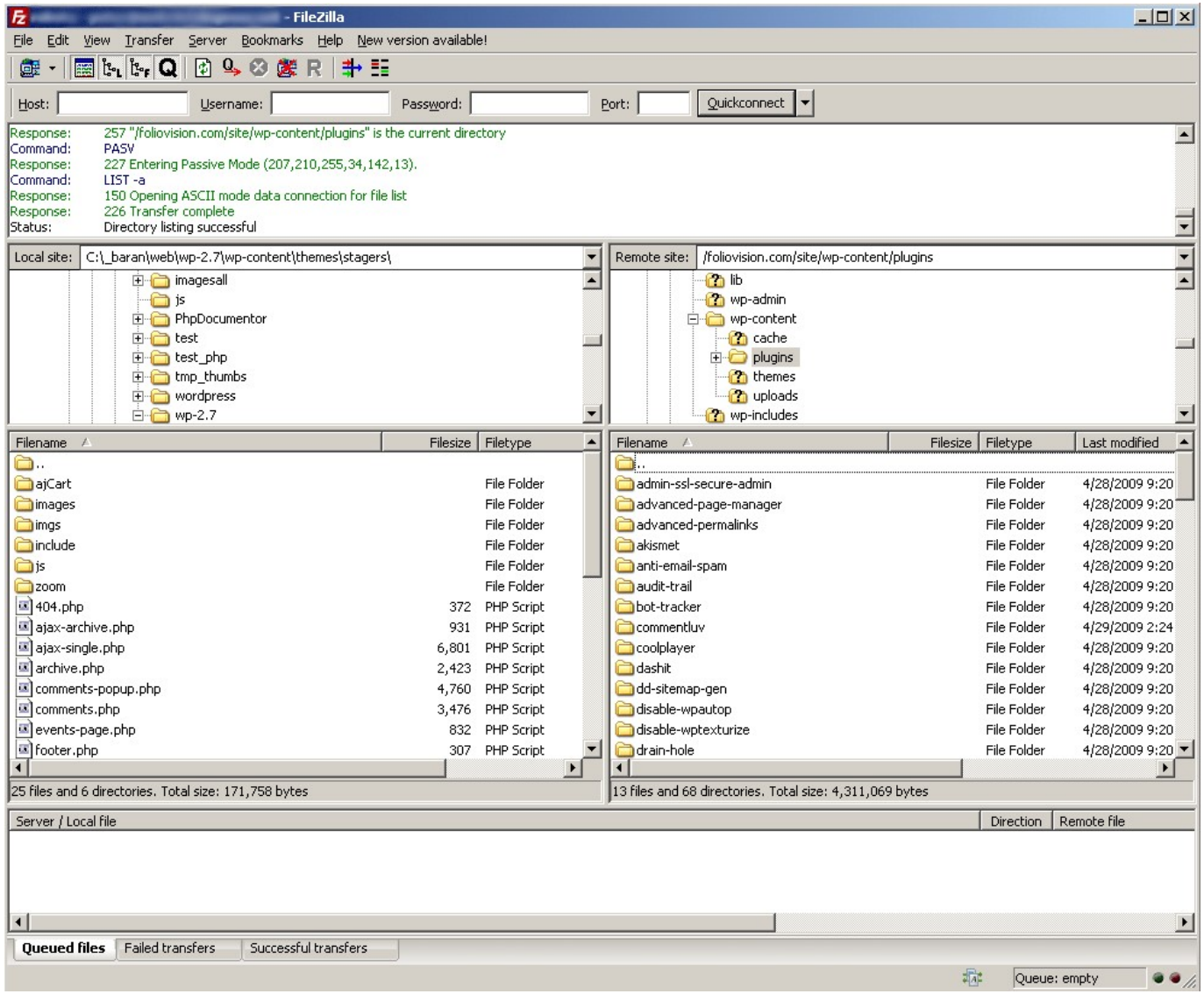
Anforderungen an den Betrieb

Alles nur ein Privileg der „Big Players“?

Anforderungen an den Betrieb

Azure Web Apps

Deployment Evolution


- FileZilla
File Edit View Transfer Server Bookmarks Help New version available!
Host: Username: Password: Port: Quickconnect
Response: 257 "/foliovision.com/site/wp-content/plugins" is the current directory
Command: PASV
Response: 227 Entering Passive Mode (207,210,255,34,142,13).
Command: LIST -a
Response: 150 Opening ASCII mode data connection for file list
Response: 226 Transfer complete
Status: Directory listing successful
Local site: C:_baran\web\wp-2.7\wp-content\themes\stagers\
imagesall
js
PhpDocumentor
test
test_php
tmp_thumbs
wordpress
wp-2.7
Remote site: /foliovision.com/site/wp-content/plugins
lib
wp-admin
wp-content
cache
plugins
themes
uploads
wp-includes
Filename Filesize Filetype
.. ajCart File Folder images File Folder imgs File Folder include File Folder js File Folder zoom File Folder 404.php 372 PHP Script ajax-archive.php 931 PHP Script ajax-single.php 6,801 PHP Script archive.php 2,423 PHP Script comments-popup.php 4,760 PHP Script comments.php 3,476 PHP Script events-page.php 832 PHP Script footer.php 307 PHP Script
25 files and 6 directories. Total size: 171,758 bytes
Filename Filesize Filetype Last modified
.. admin-ssl-secure-admin File Folder 4/28/2009 9:20 advanced-page-manager File Folder 4/28/2009 9:20 advanced-permalinks File Folder 4/28/2009 9:20 akismet File Folder 4/28/2009 9:20 anti-email-spam File Folder 4/28/2009 9:20 audit-trail File Folder 4/28/2009 9:20 bot-tracker File Folder 4/28/2009 9:20 commentluv File Folder 4/29/2009 2:24 coolplayer File Folder 4/28/2009 9:20 dashit File Folder 4/28/2009 9:20 dd-sitemap-gen File Folder 4/28/2009 9:20 disable-wpautop File Folder 4/28/2009 9:20 disable-wptexturize File Folder 4/28/2009 9:20 drain-hole File Folder 4/28/2009 9:20
13 files and 68 directories. Total size: 4,311,069 bytes
Server / Local file Direction Remote file
Queued files Failed transfers Successful transfers
Queue: empty

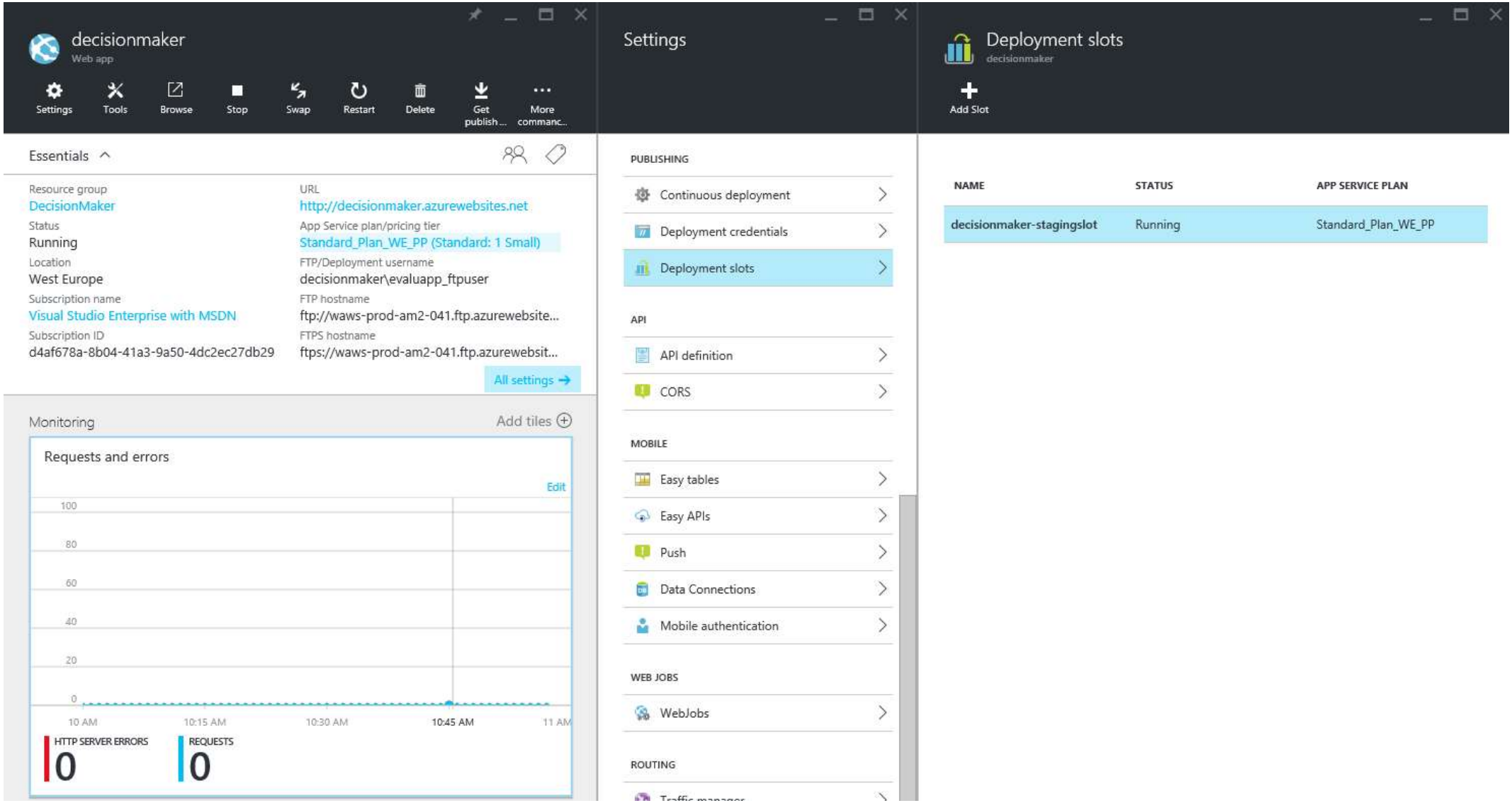
Deployment-Evolution

- „Always On“ steht klar im Fokus
- Continuous Integration
- Staging-Environment(s)

Deployment Slots

Deployment-Evolution | Deployment Slots

- Eigenständige Web App – Deployments
  - Eigene URL
  - Remote-Debugging
  - Swapping
  - Instanzspezifische und -unabhängige Settings
    - Connection Strings
    - App Settings
    - Eigener WebJob-Content (nicht die Scheduling-Konfiguration)
    - Scaling-Settings (werden von der Produktivinstanz verwendet)


decisionmaker
Web app
Settings
Tools
Browse
Stop
Swap
Restart
Delete
Get publish ...
More commanc...
Essentials
Resource group
DecisionMaker
Status
Running
Location
West Europe
Subscription name
Visual Studio Enterprise with MSDN
Subscription ID
d4af678a-8b04-41a3-9a50-4dc2ec27db29
URL
http://decisionmaker.azurewebsites.net
App Service plan/pricing tier
Standard_Plan_WE_PP (Standard: 1 Small)
FTP/Deployment username
decisionmaker\evaluapp_ftpuser
FTP hostname
ftp://waws-prod-am2-041.ftp.azurewebsite...
FTPS hostname
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All settings
Monitoring
Add tiles
Requests and errors
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10 AM
10:15 AM
10:30 AM
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HTTP SERVER ERRORS
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REQUESTS
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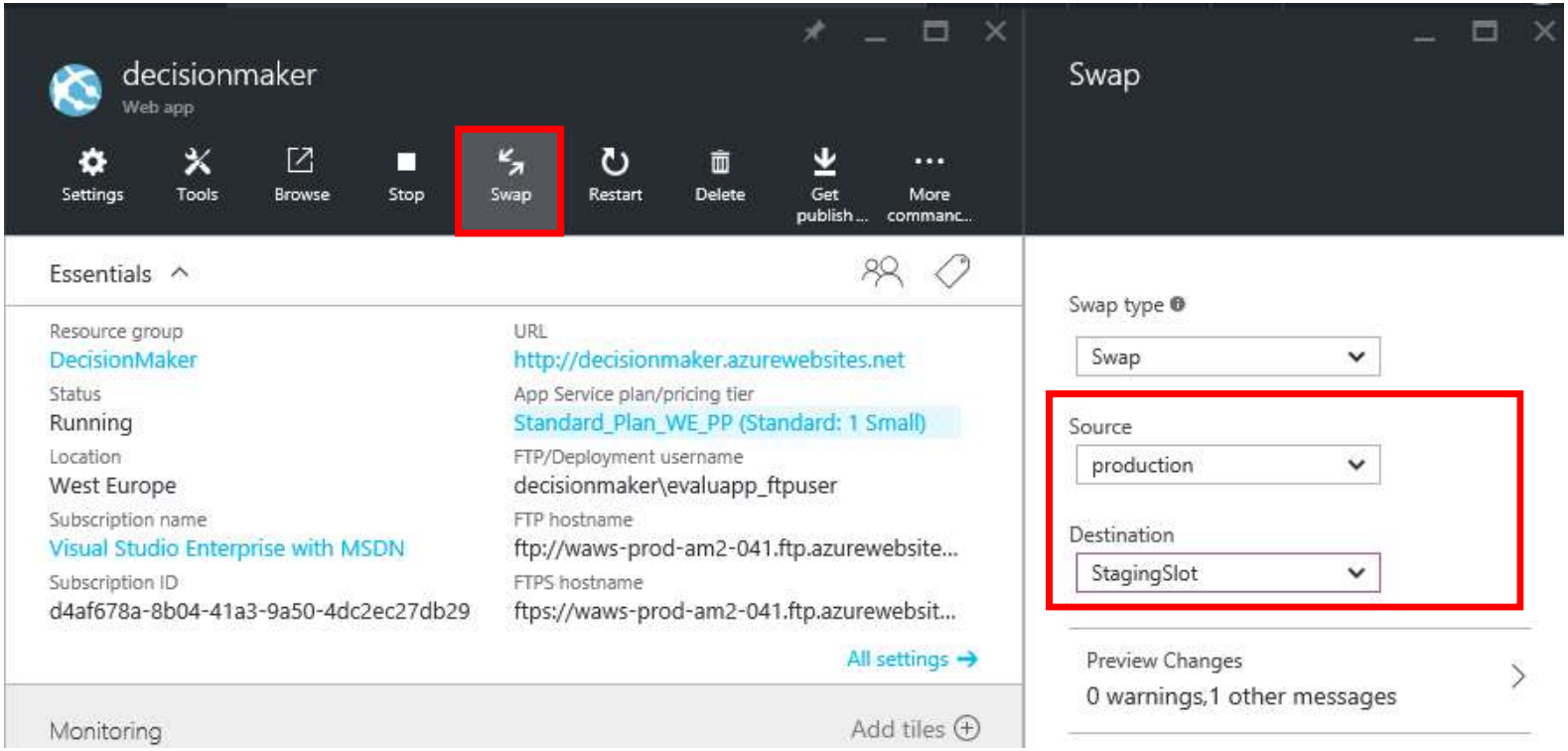
Settings
PUBLISHING
Continuous deployment
Deployment credentials
Deployment slots
API
API definition
CORS
MOBILE
Easy tables
Easy APIs
Push
Data Connections
Mobile authentication
WEB JOBS
WebJobs
ROUTING
Deployment slots
decisionmaker
Add Slot
NAME
STATUS
APP SERVICE PLAN
decisionmaker-stagingslot
Running
Standard_Plan_WE_PP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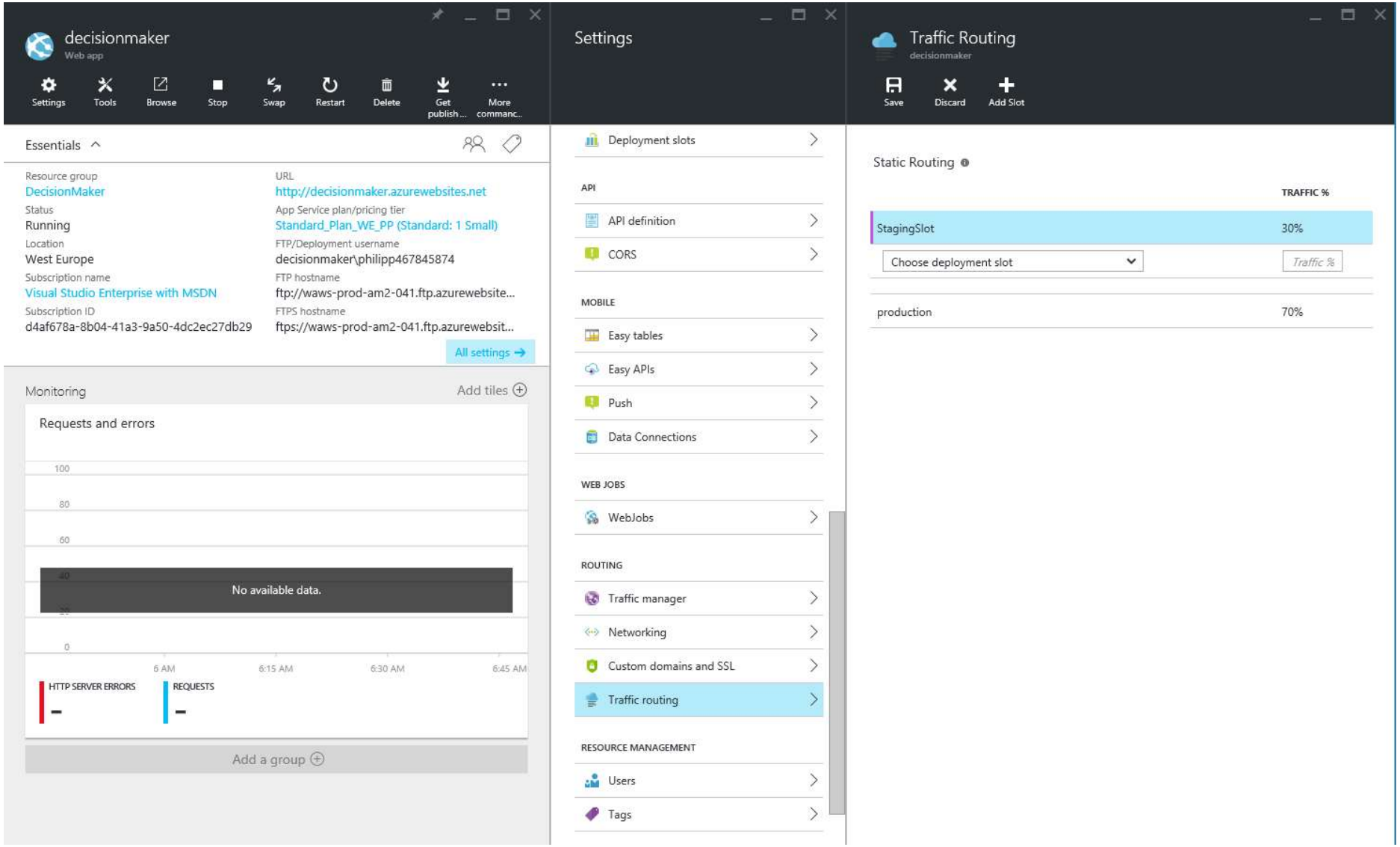
ftps://waws-prod-am2-041.ftp.azurewebsit...
All settings
Monitoring
Add tiles
Swap
Swap type
Swap
Source
production
Destination
StagingSlot
Preview Changes
0 warnings,1 other messages

Deployment-Evolution | TiP / Live Testing

- Testing in Production
- Grundlage bilden Deployment Slots
- Traffic Routing
  - zB 50% des Traffics werden an Deployment Slot „xy“ geleitet
  - Verfügbar für „Standard“ und „Premium“ Servicepläne
- Tracking durch Application Insights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FTP/Deployment username
decisionmaker\philipp467845874
FTP hostname
ftp://waws-prod-am2-041.ftp.azurewebsite...
FTPS hostname
ftps://waws-prod-am2-041.ftp.azurewebsit...
All settings
Monitoring
Add tiles
Requests and errors
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HTTP SERVER ERRORS
REQUESTS
Add a group
Settings
Deployment slots
API
API definition
CORS
MOBILE
Easy tables
Easy APIs
Push
Data Connections
WEB JOBS
WebJobs
ROUTING
Traffic manager
Networking
Custom domains and SSL
Traffic routing
RESOURCE MANAGEMENT
Users
Tags
Traffic Routing
decisionmaker
Save
Discard
Add Slot
Static Routing
TRAFFIC %
StagingSlot
30%
Choose deployment slot
Traffic %
production
70%

Deployment-Evolution | ARM

- Azure Resource Manager
- Deklarative Konfiguration von Ressourcen und Settings
- Zusammenfassungen mehrere Komponenten zu einer Gruppe
- Ziel ist es keine manuellen Schritte mehr zu benötigen
- Deployment-Template (JSON)

ARM-Template


{
"$schema": "http://schema.management.azure.com/schemas/2014-04-01-preview/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": ...,
"resources": [
{
"apiVersion": "2015-04-01",
"name": "[parameters('hostingPlanName')]",
"type": "Microsoft.Web/serverfarms",
"location": "[parameters('siteLocation')]",
"properties": {
"name": "[parameters('hostingPlanName')]",
"sku": "[parameters('sku')]",
"workerSize": "[parameters('workerSize')]",
"numberOfWorkers": 1
}
},
{
"apiVersion": "2015-04-01",
"name": "[parameters('siteName')]",
"type": "Microsoft.Web/sites",
"location": "[parameters('siteLocation')]",
"dependsOn": [
"[resourceId('Microsoft.Web/serverfarms', parameters('hostingPlanName'))]"
],
"properties": {
"serverFarmId": "[parameters('hostingPlanName')]"
},
"resources": [
{
"apiVersion": "2015-04-01",
"name": "web",
"type": "sourcecontrols",
"dependsOn": [
"[resourceId('Microsoft.Web/Sites', parameters('siteName'))]"
],
"properties": {
"RepoUrl": "[parameters('repoURL')]",
"branch": "[parameters('branch')]",
"IsManualIntegration": true
}
}
]
}
]
}

Deployment-Evolution | ARM-Template

https://github.com/Azure/azure-quickstart-templates

Deployment-Evolution | ARM-Template

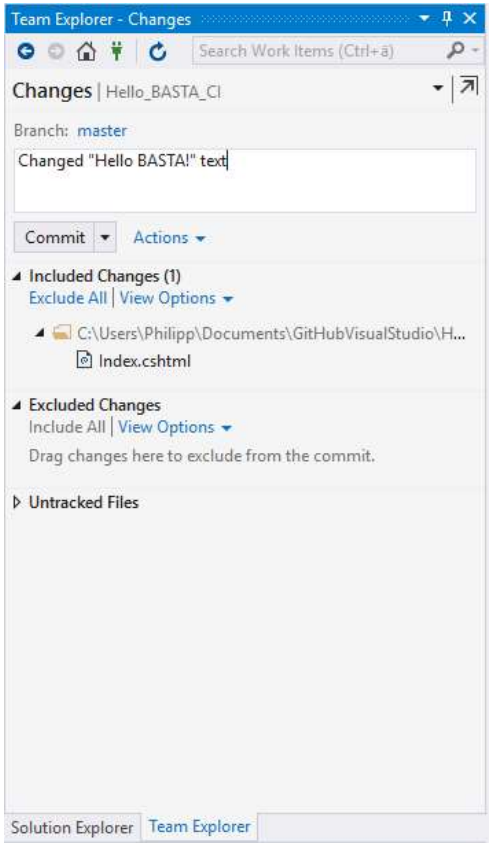
- Deployment
  - Power Shell
  - Azure Command-Line-Interface (CLI)
  - REST API
  - Azure Portal
  - Visual Studio

Continuous Integration

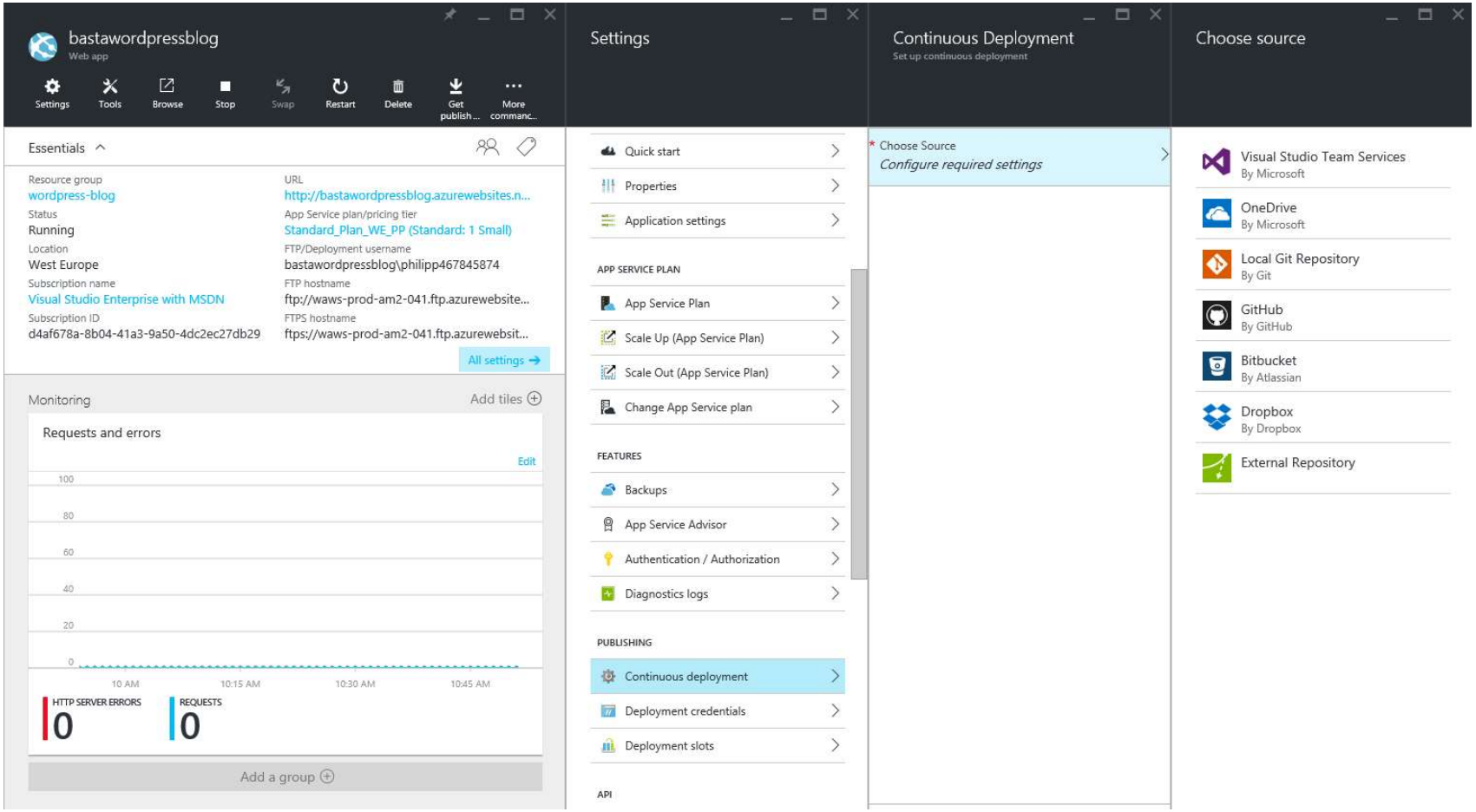
Continuous Deployment | Continuous Delivery

Continuous Integration

- Build- und Deploymentautomatisierung
- Kurze Releasezyklen
  → kurze Testzyklen
- „Große“ Versionen werden vermieden
- Verschiedene „Provider“ von Azure unterstützt
  - Visual Studio Team Services
  - Lokales Git-Repository
  - GitHub
  - Bitbucket
  - Dropbox
  - Externe Repositories



CI | GitHub


bastawordpressblog
Web app
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Browse
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More commanc...
Essentials
Resource group
wordpress-blog
Status
Running
Location
West Europe
Subscription name
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Subscription ID
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10 AM
10:15 AM
10:30 AM
10:45 AM
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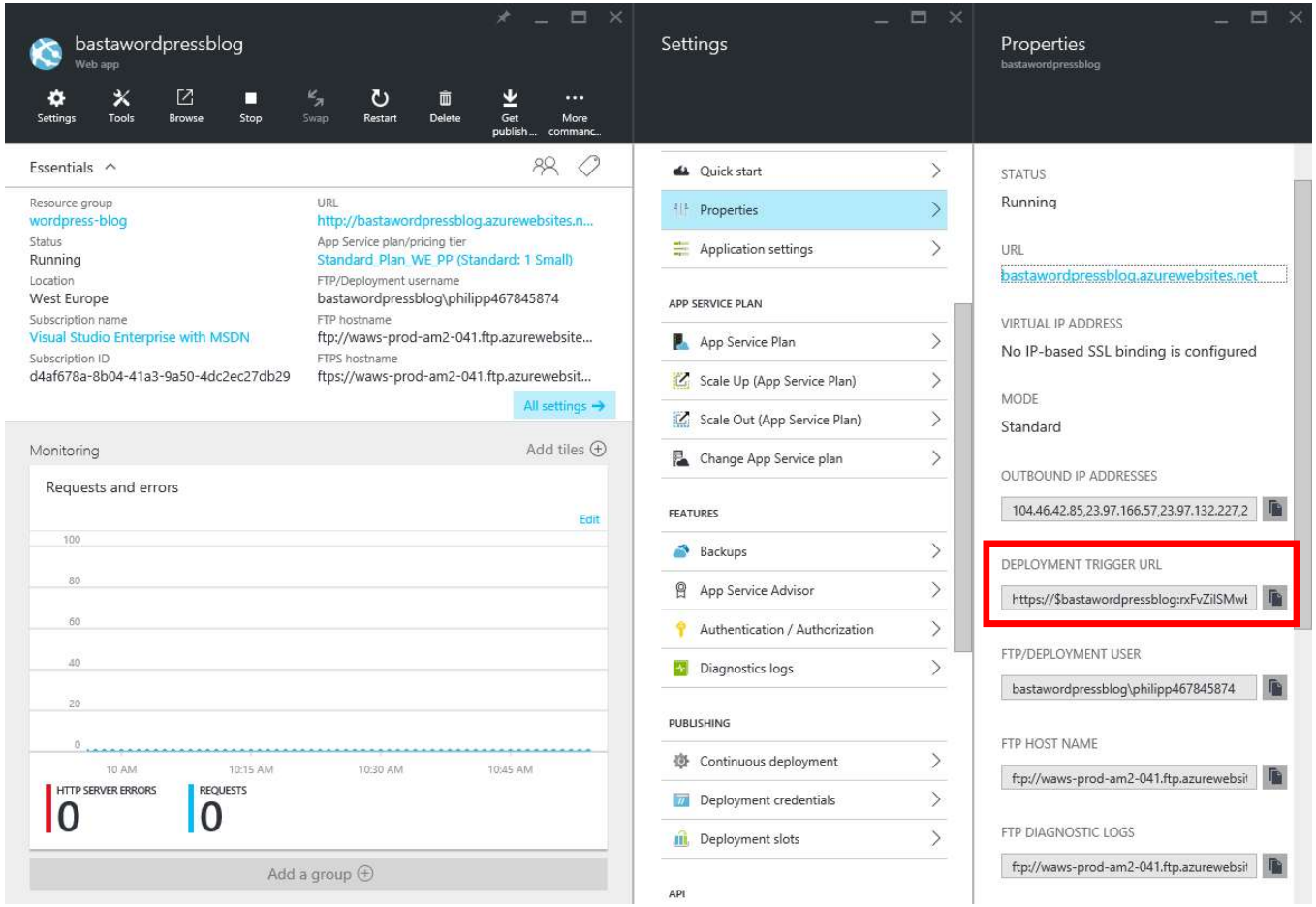
Settings
Quick start
Properties
Application settings
APP SERVICE PLAN
App Service Plan
Scale Up (App Service Plan)
Scale Out (App Service Plan)
Change App Service plan
FEATURES
Backups
App Service Advisor
Authentication / Authorization
Diagnostics logs
PUBLISHING
Continuous deployment
Deployment credentials
Deployment slots
API
Continuous Deployment
Set up continuous deployment
* Choose Source
Configure required settings
Choose source
Visual Studio Team Services
By Microsoft
OneDrive
By Microsoft
Local Git Repository
By Git
GitHub
By GitHub
Bitbucket
By Atlassian
Dropbox
By Dropbox
External Repository

CI | GitHub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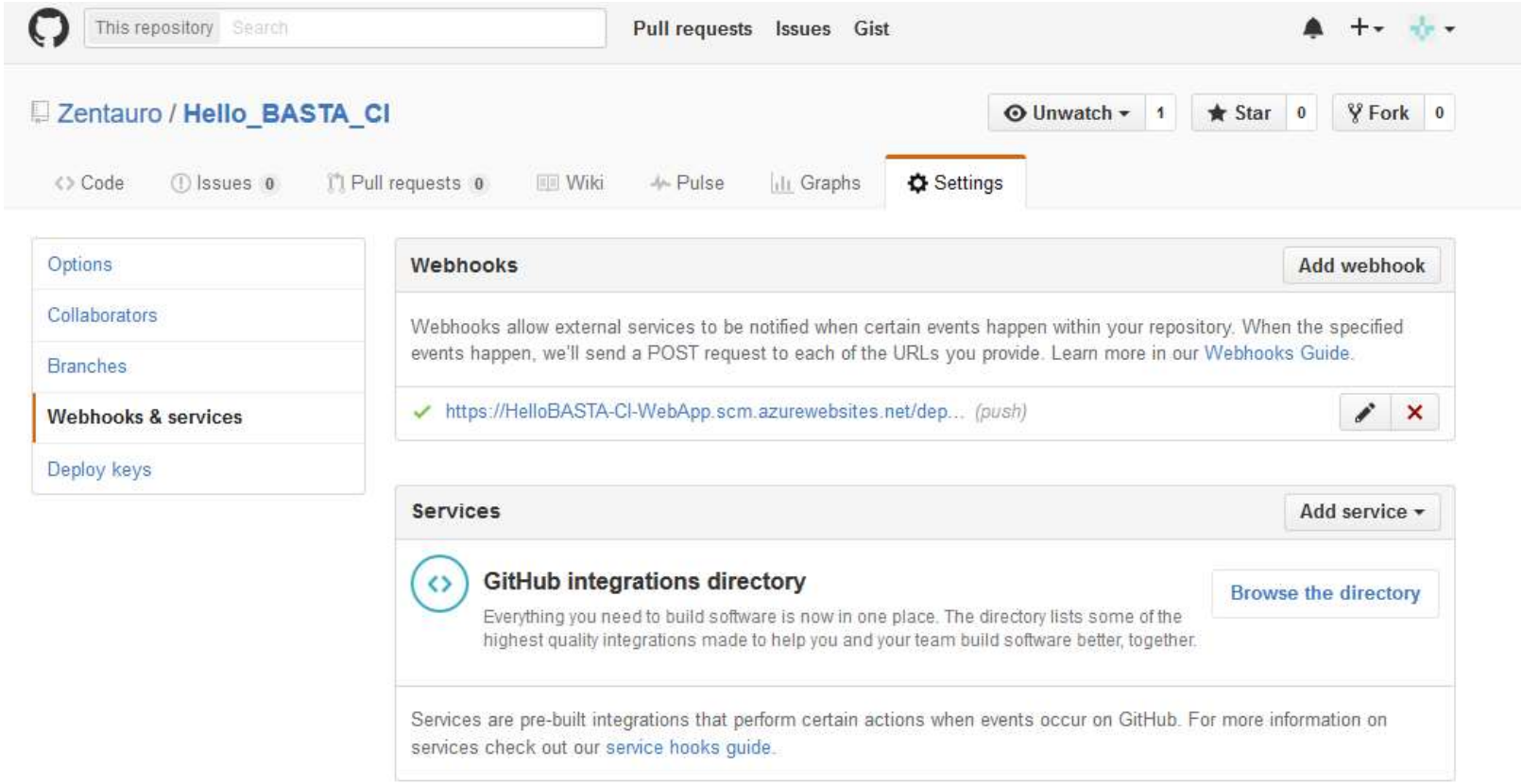
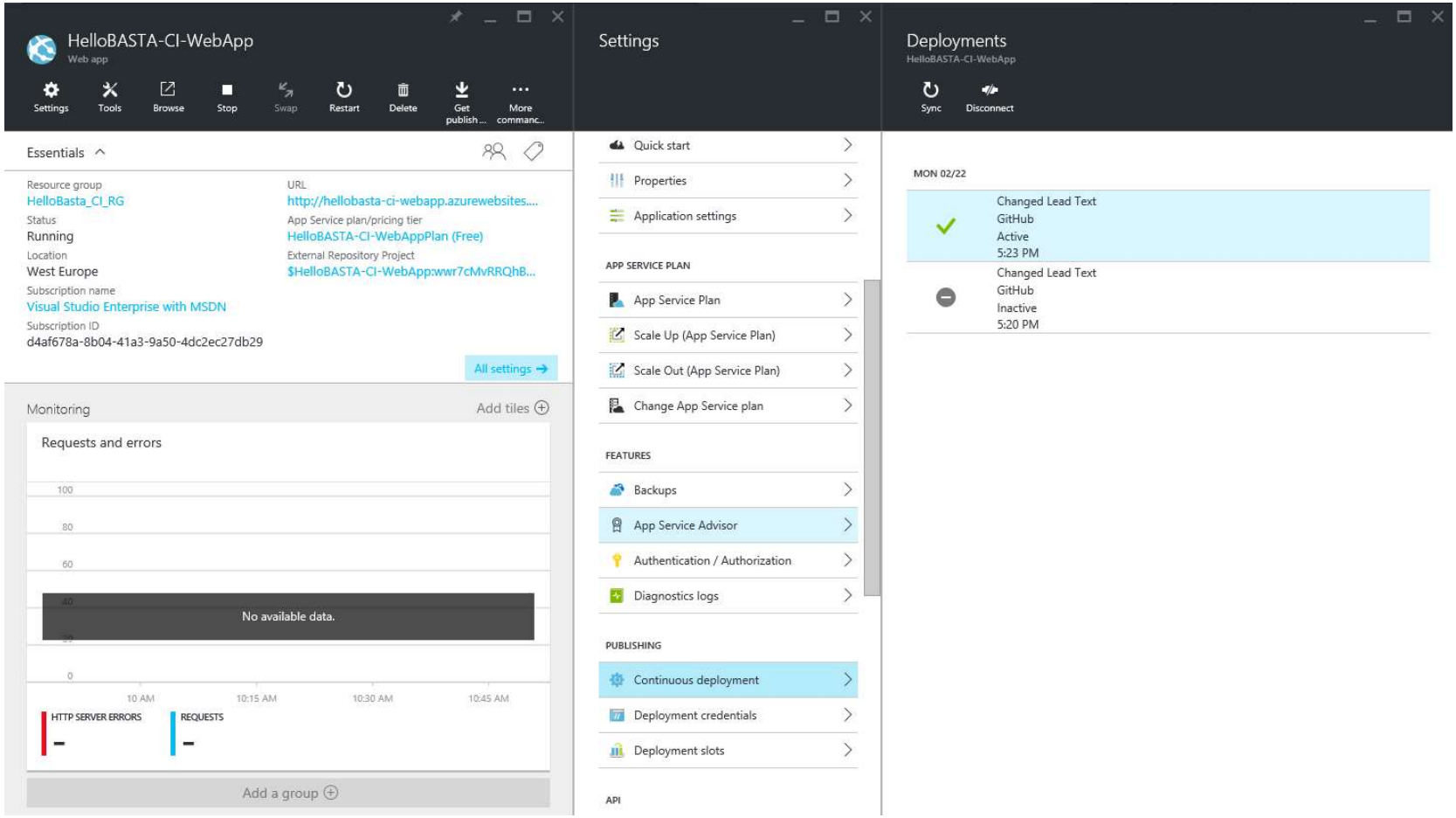
Deployment slots
API
Properties
bastawordpressblog
STATUS
Running
URL
bastawordpressblog.azurewebsites.net
VIRTUAL IP ADDRESS
No IP-based SSL binding is configured
MODE
Standard
OUTBOUND IP ADDRESSES
104.46.42.85,23.97.166.57,23.97.132.227,2
DEPLOYMENT TRIGGER URL
https://$bastawordpressblog:rxFvZilSMwl
FTP/DEPLOYMENT USER
bastawordpressblog\philipp467845874
FTP HOST NAME
ftp://waws-prod-am2-041.ftp.azurewebsit
FTP DIAGNOSTIC LOGS
ftp://waws-prod-am2-041.ftp.azurewebsit

CI | GitHub


This repository
Search
Pull requests
Issues
Gist
Zentauro / Hello_BASTA_CI
Unwatch 1
Star 0
Fork 0
Code
Issues 0
Pull requests 0
Wiki
Pulse
Graphs
Settings
Options
Collaborators
Branches
Webhooks & services
Deploy keys
Webhooks
Add webhook
Webhooks allow external services to be notified when certain events happen within your repository. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our Webhooks Guide.
https://HelloBASTA-CI-WebApp.scm.azurewebsites.net/dep... (push)
Services
Add service
GitHub integrations directory
Everything you need to build software is now in one place. The directory lists some of the highest quality integrations made to help you and your team build software better, together.
Browse the directory
Services are pre-built integrations that perform certain actions when events occur on GitHub. For more information on services check out our service hooks guide.

CI | GitHub


HelloBASTA-CI-WebApp
Web app
Settings
Tools
Browse
Stop
Swap
Restart
Delete
Get publish ...
More commanc...
Essentials
Resource group
HelloBasta_CI_RG
Status
Running
Location
West Europe
Subscription name
Visual Studio Enterprise with MSDN
Subscription ID
d4af678a-8b04-41a3-9a50-4dc2ec27db29
URL
http://hellobasta-ci-webapp.azurewebsites....
App Service plan/pricing tier
HelloBASTA-CI-WebAppPlan (Free)
External Repository Project
$HelloBASTA-CI-WebApp:wwr7cMvRRQhB...
All settings
Monitoring
Add tiles
Requests and errors
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10 AM
10:15 AM
10:30 AM
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Authentication / Authorization
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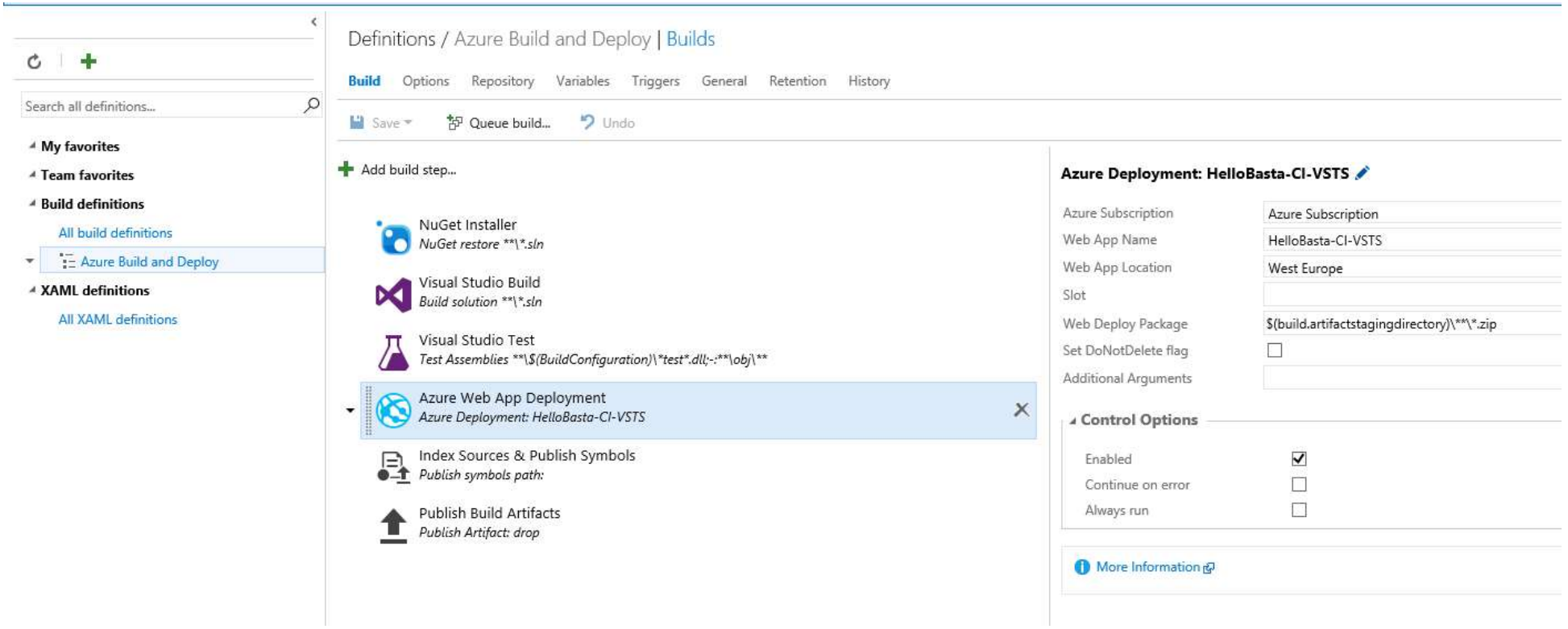
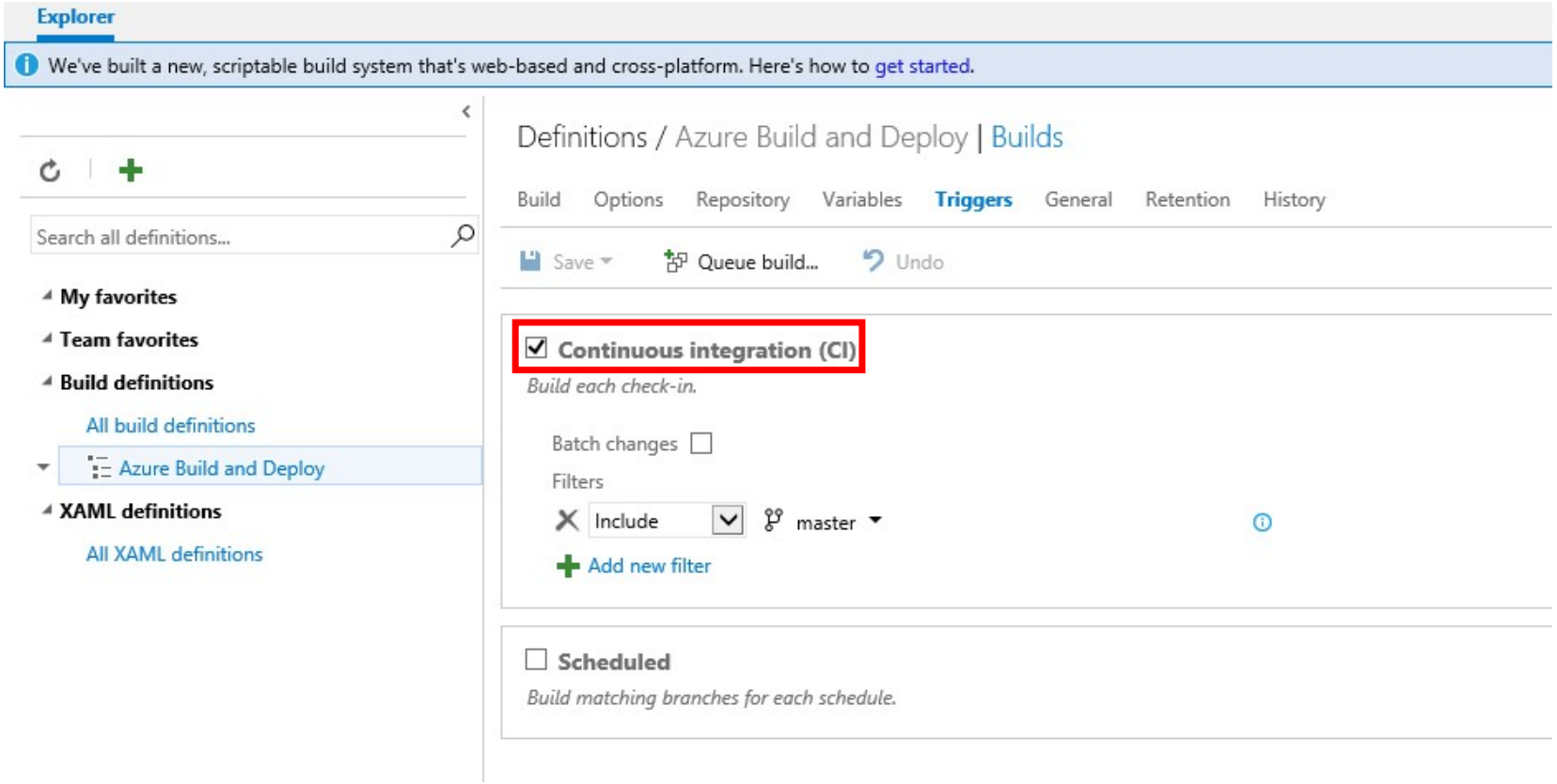
Deployments
HelloBASTA-CI-WebApp
Sync
Disconnect
MON 02/22
Changed Lead Text
GitHub
Active
5:23 PM
Changed Lead Text
GitHub
Inactive
5:20 PM

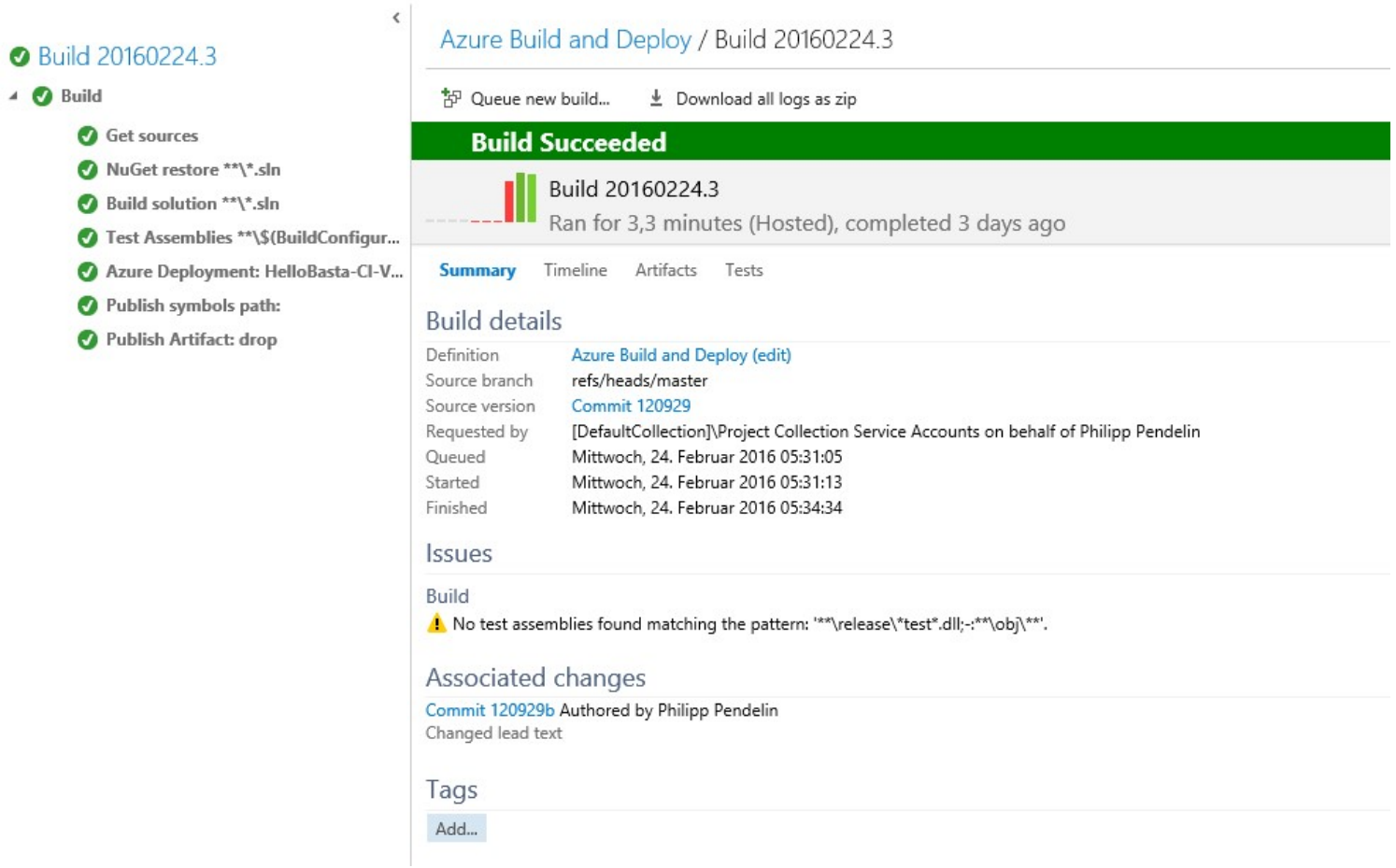
CI | Visual Studio Team Services



CI | Visual Studio Team Services



CI | Visual Studio Team Services



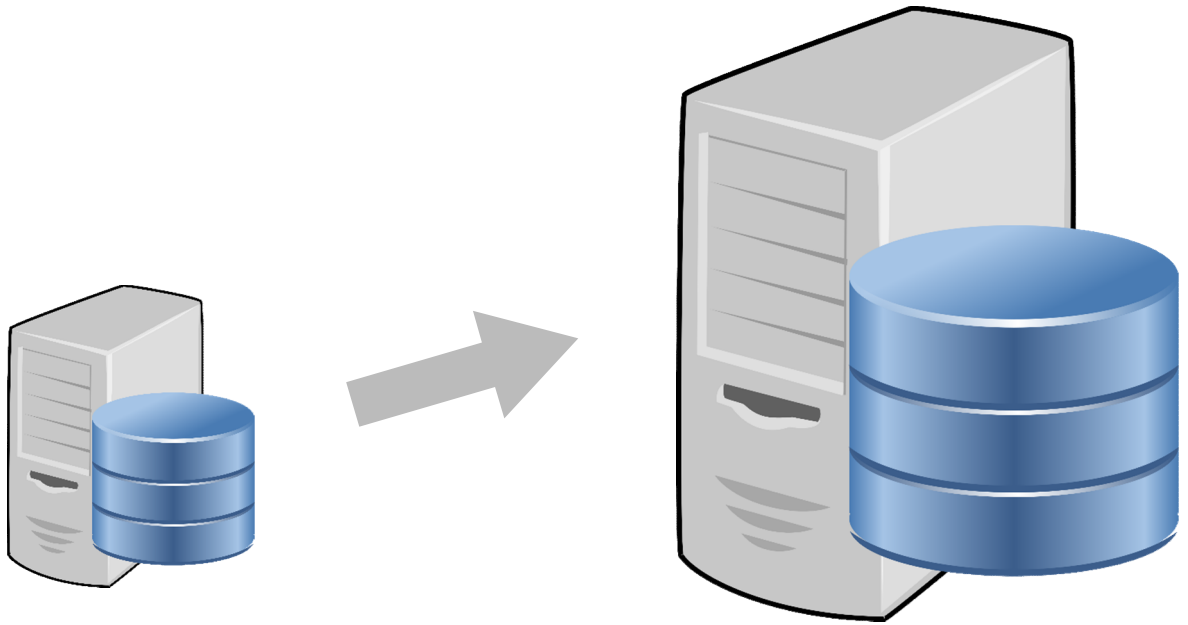
Scaling

Scaling

- Anpassung des Hostingmodells an die Last
- Scale-Up vs. Scale-Out

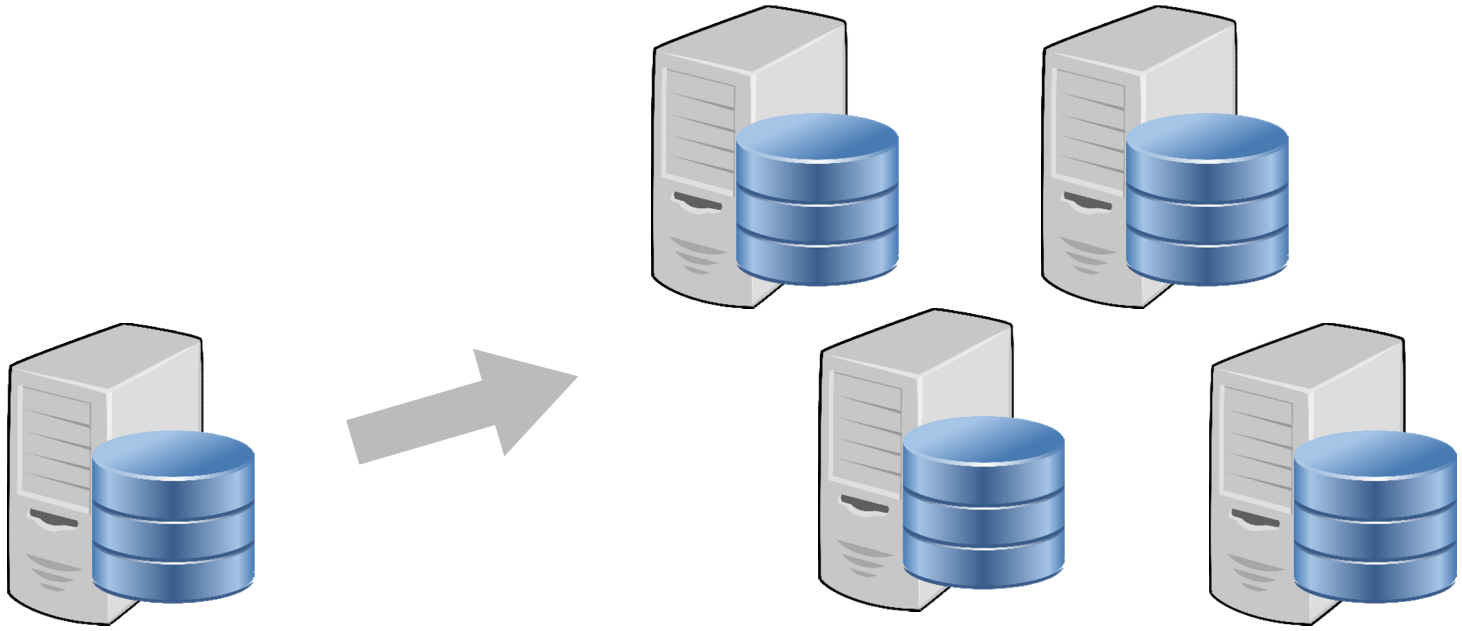
Scaling

- Anpassung des Hostingmodells an die Last
- Scale-Up



Scaling

- Anpassung des Hostingmodells an die Last
- Scale-Out

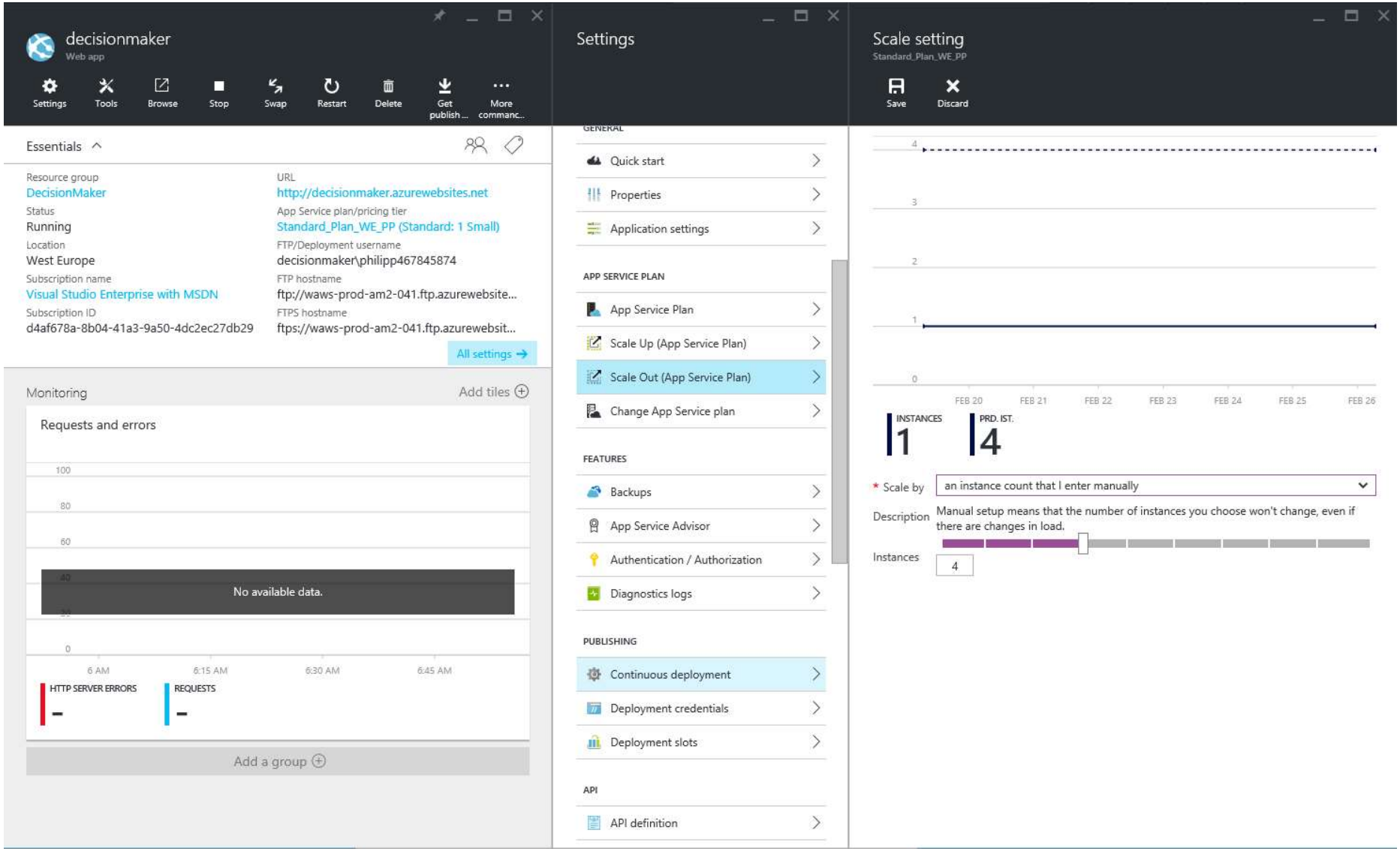


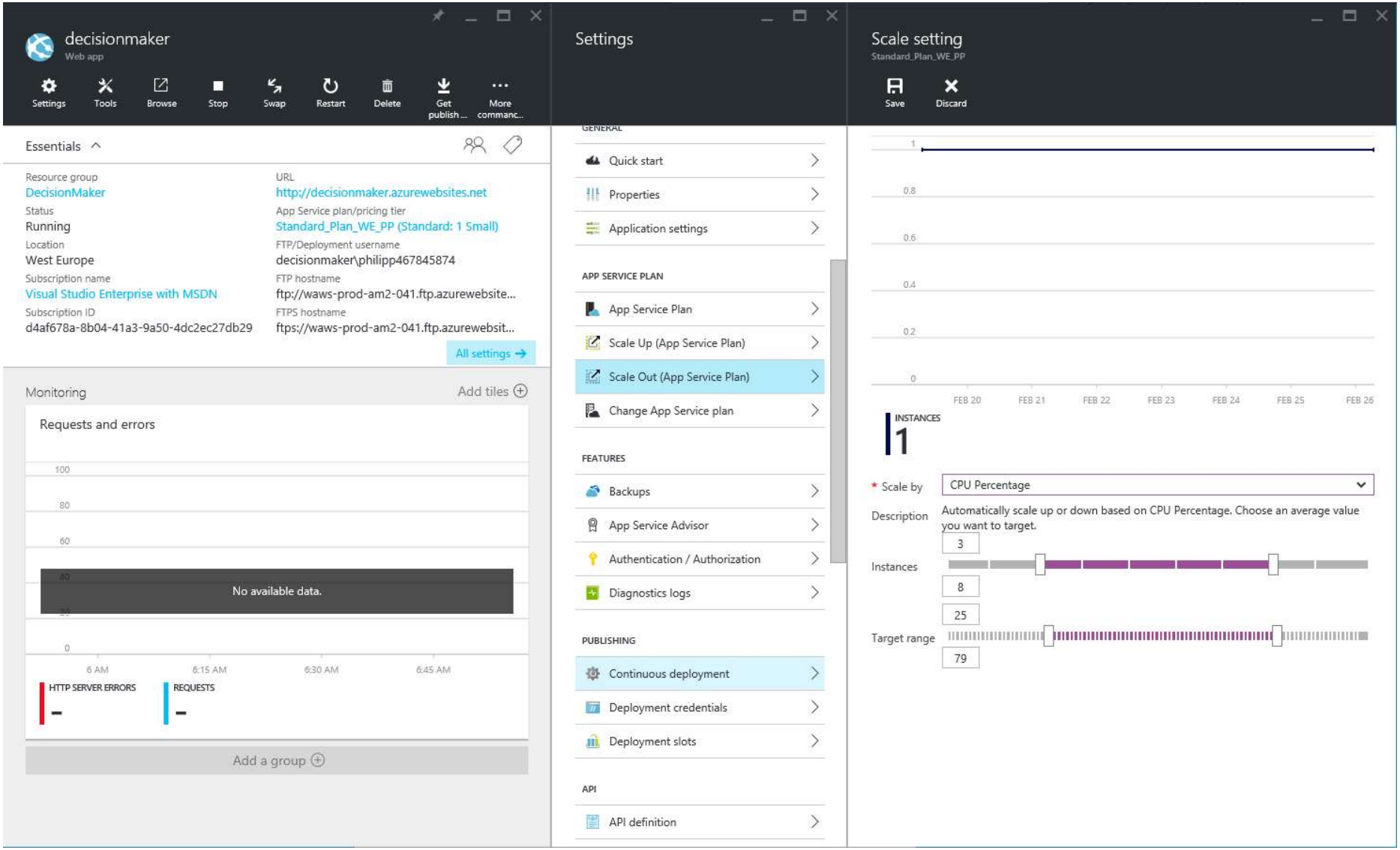
Scaling

- Scaling ist nicht „gratis“
  - Scale-Up (größerer App Service Plan)
  - Scale-Out (mehr Instanzen)
- Probleme bei Scale-Out
  - Status am Server → Session, Websockets, Caches
  - Zugriff auf gemeinsam verwendete Ressourcen → Synchronisierung

Scaling

- Scaling-Strategien in Azure
  - Manuelles Scaling
  - Autoscaling
    - Lastgesteuertes Skalieren
    - Zeitgesteuertes Skalieren
    - „Regelgesteuertes“ Skalieren


decisionmaker
Web app
Settings
Tools
Browse
Stop
Swap
Restart
Delete
Get publish ...
More commanc...
Essentials
Resource group
DecisionMaker
Status
Running
Location
West Europe
Subscription name
Visual Studio Enterprise with MSDN
Subscription ID
d4af678a-8b04-41a3-9a50-4dc2ec27db29
URL
http://decisionmaker.azurewebsites.net
App Service plan/pricing tier
Standard_Plan_WE_PP (Standard: 1 Small)
FTP/Deployment username
decisionmaker\philipp467845874
FTP hostname
ftp://waws-prod-am2-041.ftp.azurewebsite...
FTPS hostname
ftps://waws-prod-am2-041.ftp.azurewebsit...
All settings
Monitoring
Add tiles
Requests and errors
100
80
60
40
20
0
No available data.
6 AM
6:15 AM
6:30 AM
6:45 AM
HTTP SERVER ERRORS
–
REQUESTS
–
Add a group
Settings
GENERAL
Quick start
Properties
Application settings
APP SERVICE PLAN
App Service Plan
Scale Up (App Service Plan)
Scale Out (App Service Plan)
Change App Service plan
FEATURES
Backups
App Service Advisor
Authentication / Authorization
Diagnostics logs
PUBLISHING
Continuous deployment
Deployment credentials
Deployment slots
API
API definition
Scale setting
Standard_Plan_WE_PP
Save
Discard
4
3
2
1
0
FEB 20
FEB 21
FEB 22
FEB 23
FEB 24
FEB 25
FEB 26
INSTANCES
1
PRD. IST.
4
* Scale by
an instance count that I enter manually
Description
Manual setup means that the number of instances you choose won't change, even if there are changes in load.
Instances
4


decisionmaker
Web app
Settings
Tools
Browse
Stop
Swap
Restart
Delete
Get publish ...
More commanc...
Essentials
Resource group
DecisionMaker
Status
Running
Location
West Europe
Subscription name
Visual Studio Enterprise with MSDN
Subscription ID
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FTP hostname
ftp://waws-prod-am2-041.ftp.azurewebsite...
FTPS hostname
ftps://waws-prod-am2-041.ftp.azurewebsit...
All settings
Monitoring
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80
60
40
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REQUESTS
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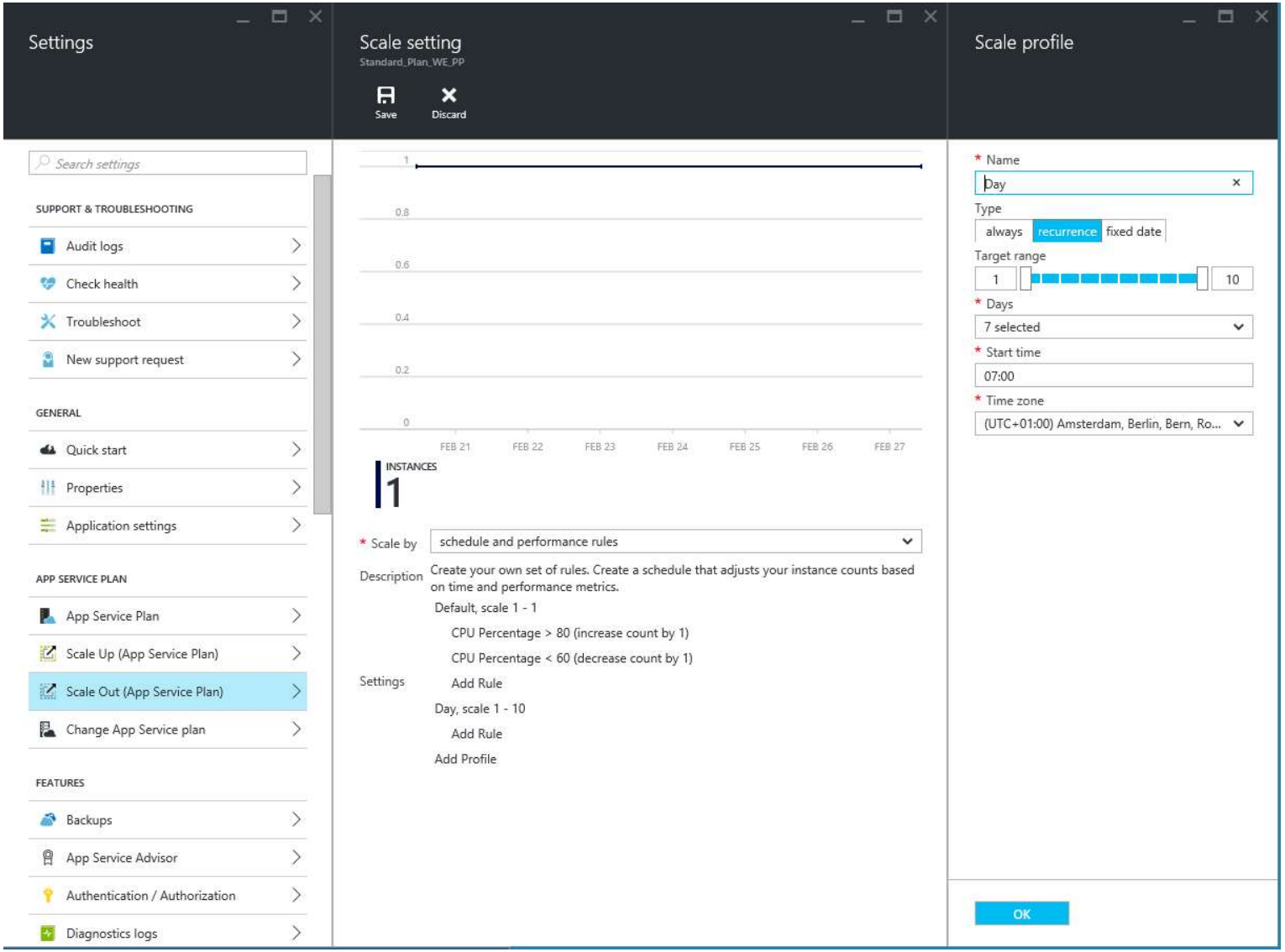
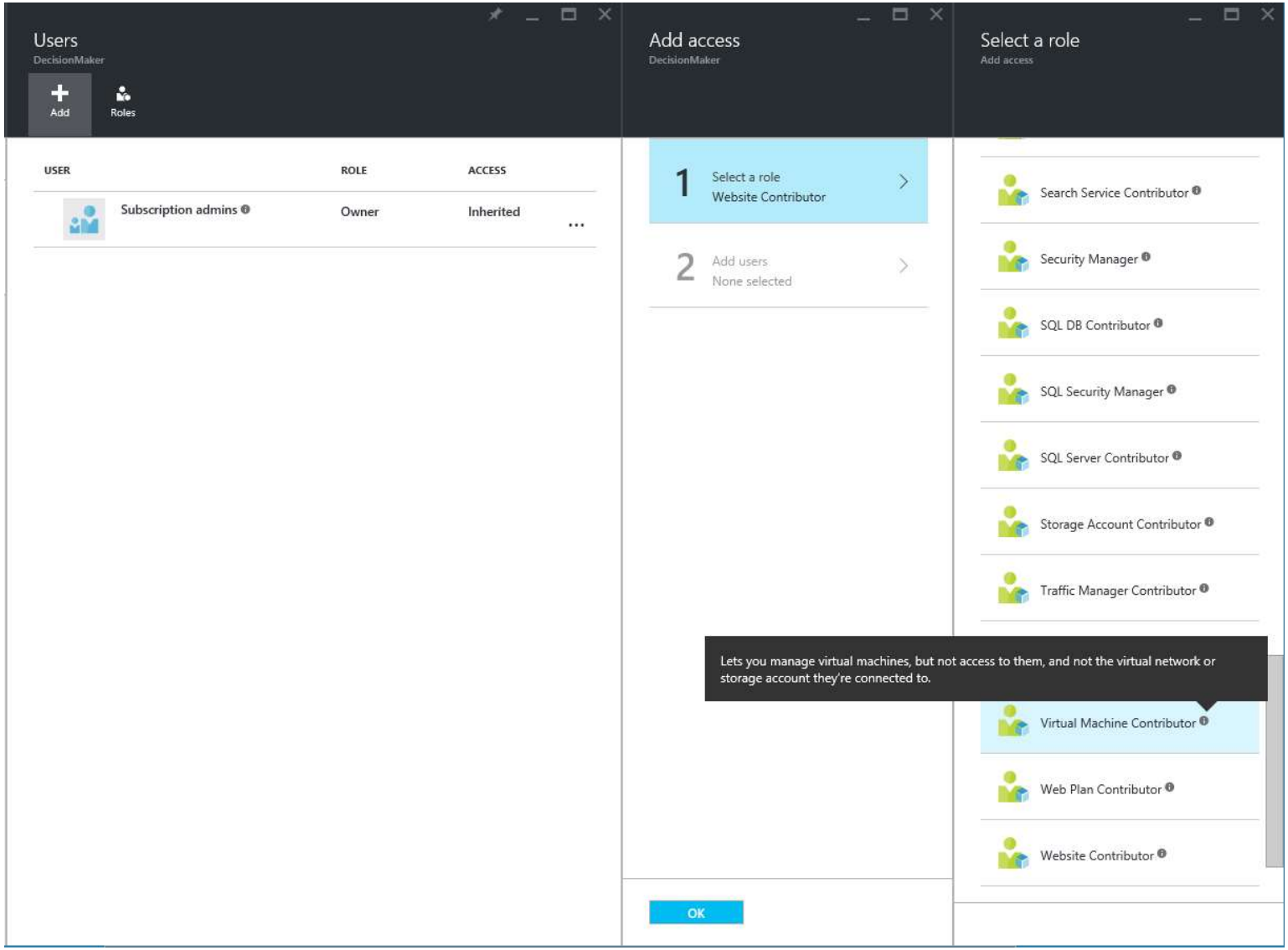
Authentication / Authorization
Diagnostics logs
PUBLISHING
Continuous deployment
Deployment credentials
Deployment slots
API
API definition
Scale setting
Standard_Plan_WE_PP
Save
Discard
1
0.8
0.6
0.4
0.2
0
FEB 20
FEB 21
FEB 22
FEB 23
FEB 24
FEB 25
FEB 26
INSTANCES
1
* Scale by
CPU Percentage
Description
Automatically scale up or down based on CPU Percentage. Choose an average value you want to target.
Instances
3
8
Target range
25
79


Settings
Search settings
SUPPORT & TROUBLESHOOTING
Audit logs
Check health
Troubleshoot
New support request
GENERAL
Quick start
Properties
Application settings
APP SERVICE PLAN
App Service Plan
Scale Up (App Service Plan)
Scale Out (App Service Plan)
Change App Service plan
FEATURES
Backups
App Service Advisor
Authentication / Authorization
Diagnostics logs
Scale setting
Standard_Plan_WE_PP
Save
Discard
1
0.8
0.6
0.4
0.2
0
FEB 21
FEB 22
FEB 23
FEB 24
FEB 25
FEB 26
FEB 27
INSTANCES
1
* Scale by
schedule and performance rules
Description
Create your own set of rules. Create a schedule that adjusts your instance counts based on time and performance metrics.
Settings
Default, scale 1 - 1
CPU Percentage > 80 (increase count by 1)
CPU Percentage < 60 (decrease count by 1)
Add Rule
Day, scale 1 - 10
Add Rule
Add Profile
Scale profile
* Name
Day
Type
always
recurrence
fixed date
Target range
1
10
* Days
7 selected
* Start time
07:00
* Time zone
(UTC+01:00) Amsterdam, Berlin, Bern, Ro...
OK

Rechteverwaltung

Rechteverwaltung

- Altes Management-Portal
  - Subscription Owner
  - Co-Admins
- Neues Management-Portal
  - Azure AD (bereits in der Subscription inkludiert)
  - Role Based Access Control (RBAC)
    - Feingranulare Rechtesteuerung auf Ressourcenebene
    - Owner vs. Contributor vs. Reader
    - Scope Inheritance | Subscription → Resource Group → Resource
    - Alle „Clients“ unterliegen dem Rechtemanagement (Portal, APIs, CLI)
    - Viele Built-In-Roles: https://azure.microsoft.com/en-us/documentation/articles/role-based-access-built-in-roles/


Users
DecisionMaker
Add
Roles
USER
ROLE
ACCESS
Subscription admins
Owner
Inherited
Add access
DecisionMaker
1
Select a role
Website Contributor
2
Add users
None selected
OK
Select a role
Add access
Search Service Contributor
Security Manager
SQL DB Contributor
SQL Security Manager
SQL Server Contributor
Storage Account Contributor
Traffic Manager Contributor
Lets you manage virtual machines, but not access to them, and not the virtual network or storage account they're connected to.
Virtual Machine Contributor
Web Plan Contributor
Website Contributor

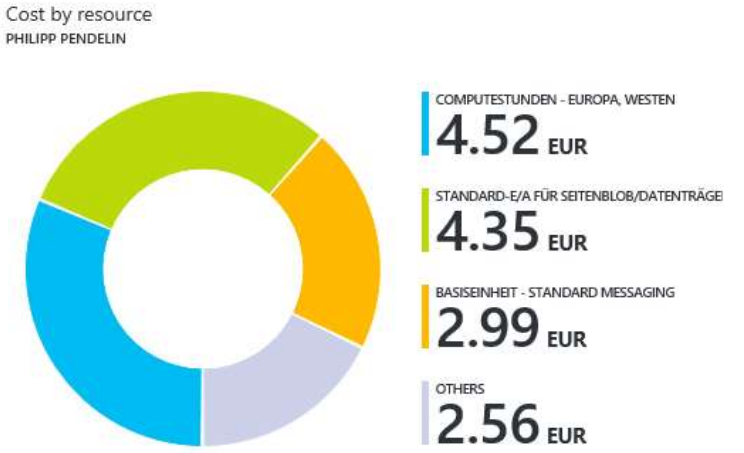
Kostenüberblick

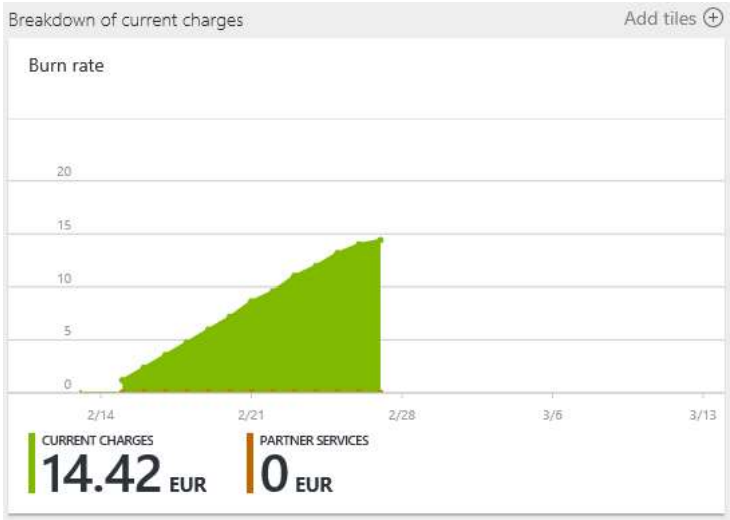
Kostenüberblick

- Enterprise Portal (http://ea.azure.com)
  - Auswertungen nach Department, Account, Subscription
  - Überblick über das verbrauchte Kontingent
  - Download von Kosten, Nutzung und Preisen als CSV-Datei
  - Billing-Alerts

Kostenüberblick

- Pay-as-you-go Subscriptions
  - Auswertungen im Azure Portal
  - Kosten-Überblick über die gesamte Subscription
  - Preise je Resource Group
  - Preise bei jedem Skalierungsvorgang ersichtlich

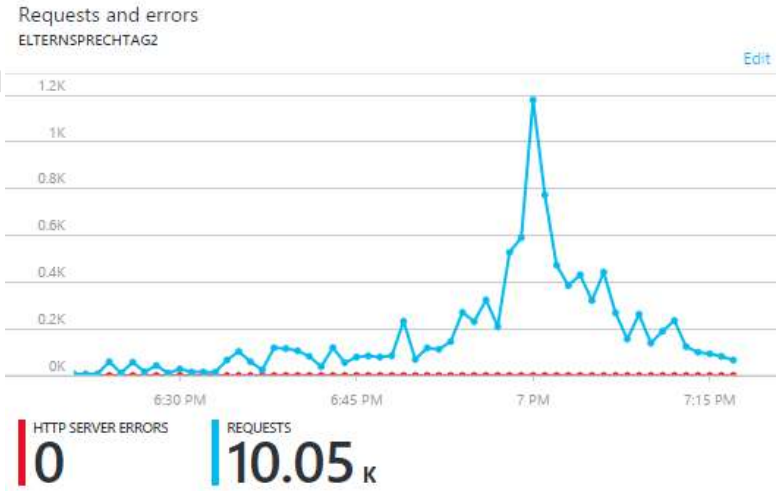




Monitoring

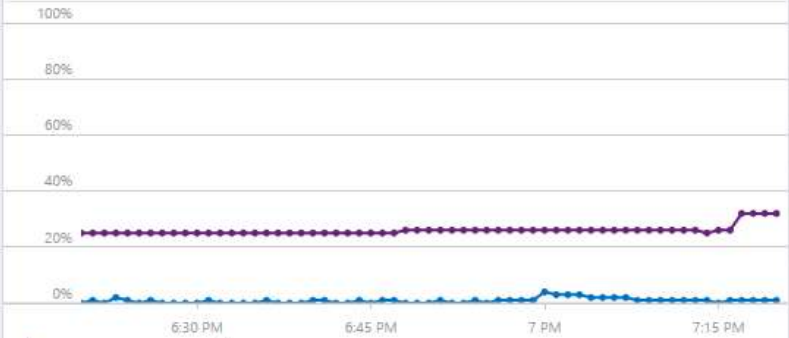
Application Insights

- „Google Analytics“ für Anwendungen
- Nicht nur für Web/Azure-Anwendungen
- Kostenlos
  (7 Tage Rohdaten / 13 Monate aggregiert)
  bis ca. 80 €/Monat
  (30 Tage Rohdaten, unlimitiert aggregiert)



CPU Percentage and Memory Percentage past hour

Edit



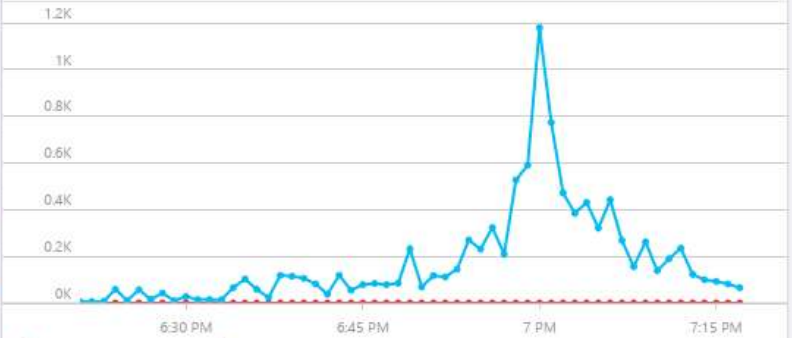
CPU PERCENTAGE
0.84 %

MEMORY PERCENTAGE
25.92 %

Requests and errors

ELTERNSPRECHTAG2

Edit



HTTP SERVER ERRORS
0

REQUESTS
10.05 K

Overview timeline

ELTERNSPRECHTAG-V2

Learn how to collect server response time data.

SERVER RESPONSE TIME
--

PAGE VIEW LOAD TIME
2.16 s

Learn how to collect server request data.

SERVER REQUESTS
0

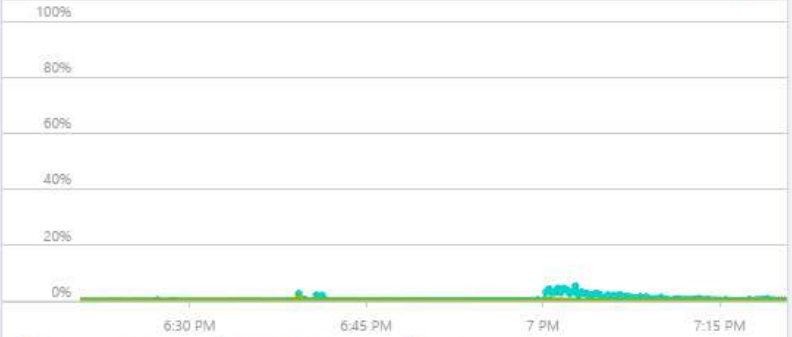
Learn how to collect failed request data.

FAILED REQUESTS
0

CPU percentage, DTU percentage and one more metric past hour

ELTERNSPRECHTAG

Edit



CPU PERCENTAGE
0.55 %

DTU PERCENTAGE
0.55 %

DATA IO PERCENTAGE
0.02 %

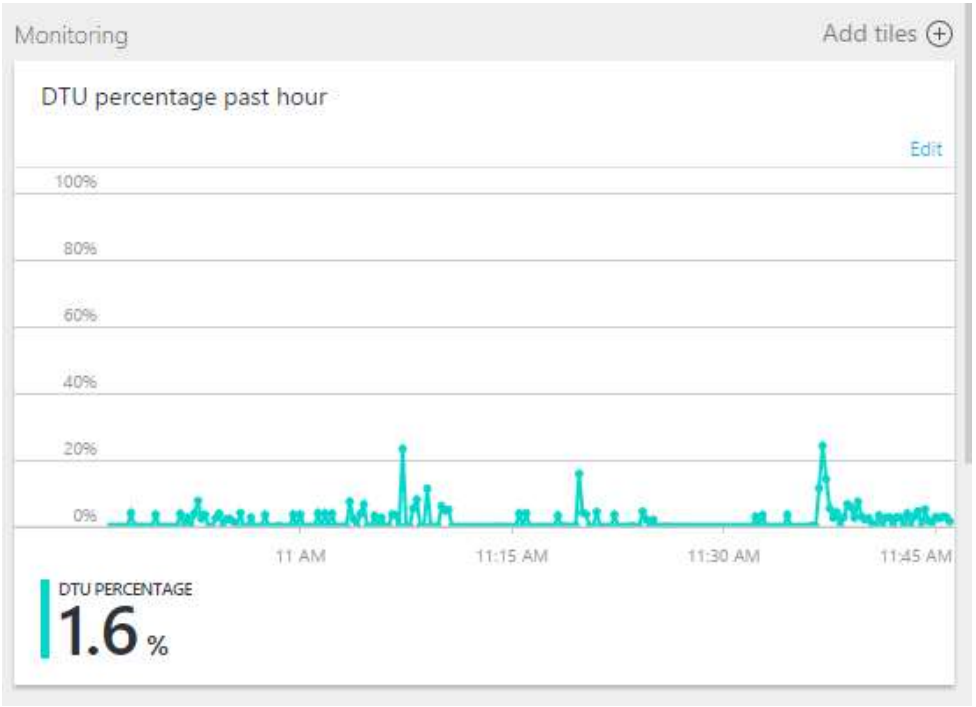
elternsprechtag2
WEB APP
Running

elternsprechtag
SQL DATABASE
Online

Query Performance ...

SQL Server V12 Monitoring

- Kennzahlen (CPU, DTU, I/O, etc.)
- Index Advisor
- Query Performance Insight



Query Performance Insight

elternsprechtag - Wed Feb 24 2016 to Thu Feb 25 2016 - Aggregation type: sum

Settings | Refresh | Index Advisor | Feedback

CPU consumption: overall and top 10 queries

OVERALL DTU
0.9 %

Performance of top queries

#	QUERY ID	CPU[%]	DURATION[HH:MM:SS]	EXECUTIONS COUNT	
☑	1006	0	00:00:05.880	817	
☑	1204	0	00:00:00.300	948	
☑	2828	0	00:00:00.410	366	
☑	1883	0	00:00:00.620	172	
☑	1351	0	00:00:00.540	5101	
☑	1002	0	00:00:00.570	3347	
☑	3019	0	00:00:00.630	12	
☑	1221	0	00:00:01.210	510	
☑	1000	0	00:00:01.350	3109	

Query details

elternsprechtag - Query ID 1204 - Wed Feb 24 2016 to Thu Feb 25 2016 - Aggregation type: sum

Settings | Refresh | Index Advisor | Query Text

Query text:

```
(@p__linq__0 datetime2(7),@p__linq__1 bit,@p__linq__2 datetime2(7))SELECT
[Project1].[ParentTeacherDayId] AS [ParentTeacherDayId],
[Project1].[School] AS [School],
[Project1].[BeginTime] AS [BeginTime],
[Project1].[EndTime] AS [EndTime],
[Project1].[Duration] AS [Duration],
[Project1].[SmallDuration] AS [SmallDuration],
[Project1].[Stage1End] AS [Stage1End],
[Project1].[Stage2End] AS [Stage2End],
[Project1].[Stage3End] AS [Stage3End],
[Project1].[Stage4End] AS [Stage4End],
```

CPU consumption: overall and 1204

OVERALL DTU
0.9 %

Performance details of 1204

INTERVAL	CPU[%]	DURATION[HH:MM:SS]	EXECUTIONS COUNT
2/24: 11 AM - 12 PM	0		0
2/24: 12 PM - 01 PM	0	00:00:00.000	9

Power BI-Integration

- Viele Azure-Datenquellen stehen in Power BI als Dienst zur Verfügung:
  - Application Insights
  - Azure Audit Logs
  - Azure Mobile Engagement
  - Azure Search
  - Azure Security Center
  - Microsoft Azure Enterprise
  - SQL Database Auditing

Power BI

Application Insights

APPLICATION INSIGHTS

Widget hinzufügen | Freigeben

Mein Arbeitsbereich

Suchen

Dashboards
- Application Insights
- Azure Audit Logs
- Azure Enterprise
- elternsprechtag.at
- Google Analytics

Berichte
- Application Insights
- Azure Audit Logs
- Azure Enterprise
- Azure Kosten elternsprec...
- elternsprechtag.at Booki...
- Google
- Google Analytics
- Login Statistics
- Login Statistics 2

Datasets
- Application Insights
- authprovider
- Azure Audit Logs
- Azure Enterprise
- elternsprechtag
- Google Analytics

Daten abrufen

Stellen Sie eine Frage zu den Daten in diesem Dashboard. Fragen

Users LAST 7 DAYS
245

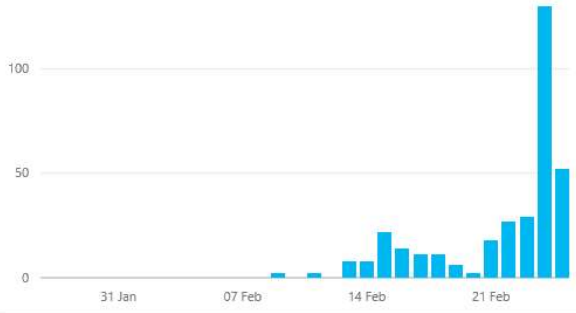
Users LAST 30 DAYS
328

Page Views LAST 7 DAYS
2368

Page Views LAST 30 DAYS
3033

Unique count of users by Country or region LAST 30 DAYS

Users LAST 30 DAYS

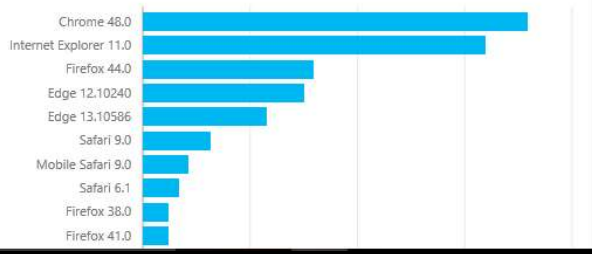


Application Details

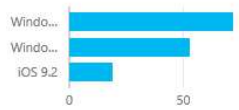
elternsprechta... Application Na...
elternsprechtag.at Resource Group
b2b49f65-9a48-4... Subscription ID

Sessions LAST 7 DAYS
311

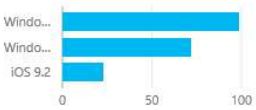
Total of page views by Browser version LAST 30 DAYS



Unique count of users by Operati... LAST 7 DAYS



Unique count of users by Operati... LAST 30 DAYS



Sessions LAST 30 DAYS
386

Unique count of sessions by Coun... LAST 7 DAYS

Unique count of sessions by Coun... LAST 7 DAYS

Unique count of sessions by Coun... LAST 30 DAYS

Wolkenbildung und Wettervorhersage: Cloud-Anwendungen im Produktiveinsatz

Philipp Pendelin | softaware gmbh