



mibuso.com




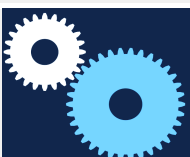

# BUILDING THE “DYNAMICS 365 FOR FINANCIALS” SERVICE

KAMIL KOCLEGA – MICROSOFT  
CONSTANTIN DANIIL - MICROSOFT

WHEN YOU ARE PASSIONATE ABOUT MICROSOFT DYNAMICS NAV | [www.navtechdays.com](http://www.navtechdays.com)



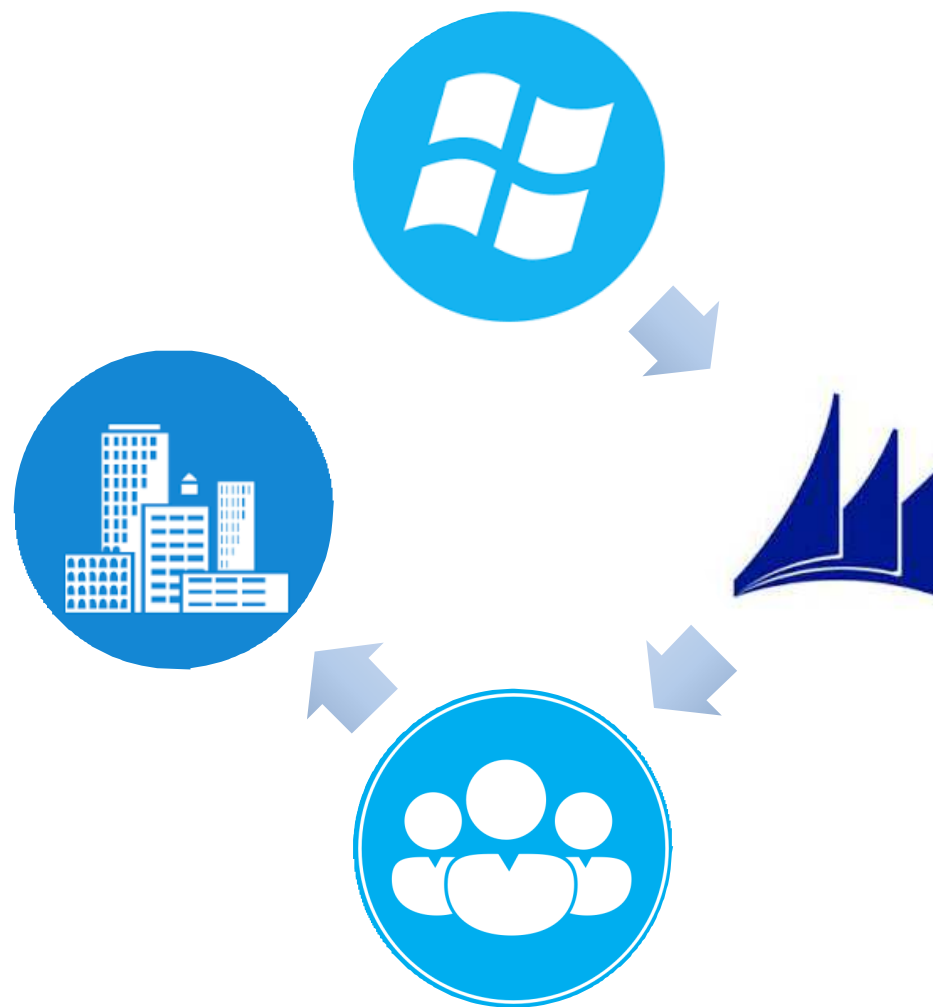
# Session Objectives

1		Understand how and why we built Dynamics 365 for Financials
2		Understand what Dynamics 365 for Financials runs on
3		NAV Platform Improvements
4		Monitoring Dynamics 365 for Financials Service
5		Satisfy your curiosity (Question time!)

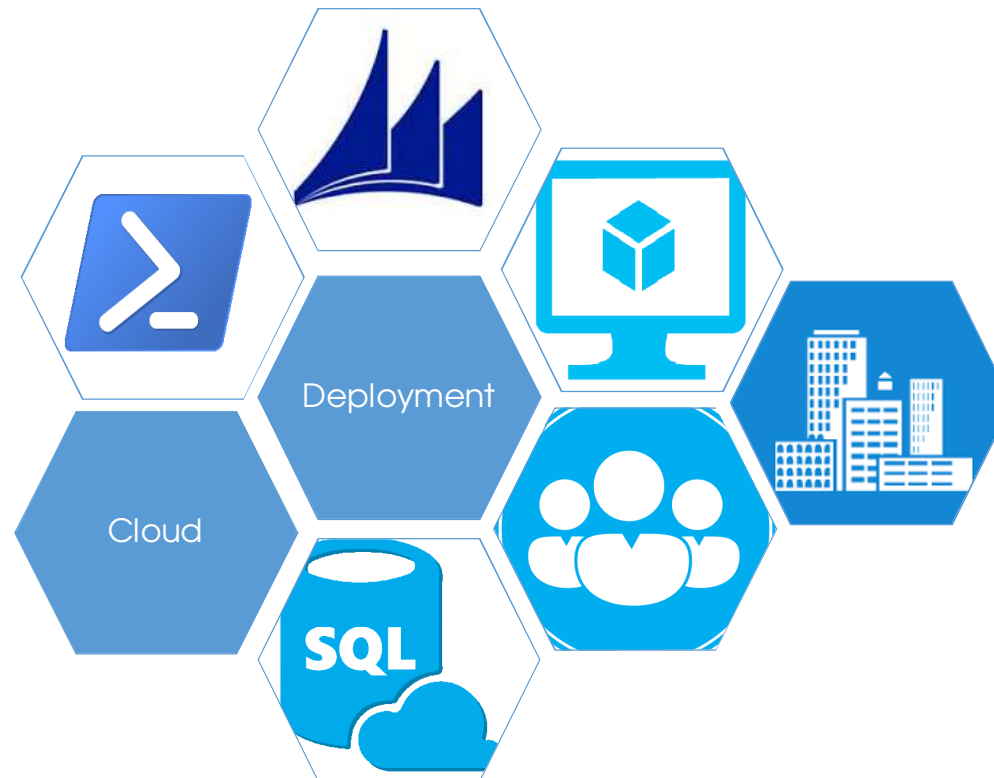
# Why was “Dynamics 365 for Financials” built

To empower every partner and small and medium business on the planet to achieve more!

# Brief history of NAV: The DVD era



# IaaS era



# PaaS - Dynamics NAV Managed Service for Partners

## Project Madeira - Management Portal

ACTIONS

HOME

Application Services

Application Tenants

Applications


Platforms

Reported Critical Issues

Customer Service and Support

### US SaaS Partner Tenant

Active Tenants By Region



Management Portal Activities

Application Servi... Resources in Use

Active

Number of Cores

Tenant Databases

Active Tenants

Stopped Tenants

Active Application Services

Name	Location	Application Name
AppDynamicsTestService	East US 2	ProjectMadeiraPPE
SaaS 1.5 RC5 01	East US 2	ProjectMadeiraPPE
SaaS 1.5 RC5 02	East US 2	ProjectMadeiraPPE
SaaS 1.5 RC5 05	East US 2	ProjectMadeiraPPE
SaaS 1.5 RC5 02	East US 2	ProjectMadeiraPPE

Inactive Application Services

(There is nothing to show in this view)

Service Status Messages

Date	Message
------	---------

# SaaS - Dynamics 365 For Financials


The screenshot shows the Microsoft Dynamics 365 for Financials website in a web browser. The address bar displays the URL <https://www.microsoft.com/en-us/dynamics365/financials>. The page features a navigation bar with the Microsoft logo, links for Cloud, Mobility, and Productivity, a search bar, and a user profile for Dmitry. Below this, a secondary navigation bar includes links for Dynamics 365, Solutions, Pricing, Partners, Resources, Support, and Blog, along with a 'Contact us' button. The main content area has a dark background on the left with the 'Microsoft Dynamics 365 for Financials' logo and the headline 'Your whole business, a single system'. It describes the solution as a complete business and financial management system for small and medium-sized businesses, highlighting features like ordering, selling, invoicing, and reporting. A 'TRY IT >' button is provided. The right side of the main area shows a woman working at a desk with a computer displaying the Dynamics 365 interface. At the bottom, three icons represent key benefits: 'Connect your business' (network icon), 'Make better decisions' (chart icon), and 'Start and grow easily' (building icon).

Financial Management Soft... x

Microsoft Cloud Mobility Productivity

Search Microsoft.com Dmitry


Dynamics 365 Solutions Pricing Partners Resources Support Blog Contact us


 Microsoft Dynamics 365 for Financials


Your whole business, a single system

Get a complete business and financial management solution for small and medium-sized businesses. Dynamics 365 for Financials makes ordering, selling, invoicing, and reporting easier—starting on day one.

TRY IT >

 Connect your business


 Make better decisions

 Start and grow easily

# Dynamics 365 For Financials – Sign-up Flow

Microsoft

## One last thing...

 dmitrych@main12246.navscout0308.cronus.com  
[Not you?](#)

▼

[Not seeing your country or region?](#)

By choosing **Start**, you agree to our [terms and conditions](#) and understand that your name and email address will be visible to other people in your institution. [Microsoft Privacy Policy](#)

**Start**

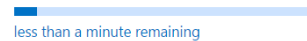
Microsoft [Privacy & cookies](#)



# Dynamics 365 For Financials – Sign-up Flow

Dynamics 365 for Financials

Finishing setup...



# SaaS – Welcome Experience

**GETTING STARTED**

Welcome to Dynamics 365 for Financials. Try it out!

See how easy it is to manage your business processes with Dynamics 365 for Financials using sample data.

If your colleagues also sign up, you'll be sharing data, so you can see how easy it is to collaborate.

[Not now](#) [Get started](#)

**Business Manager**  
**CRONUS USA, Inc.**

**Activities** ▾  
**Ongoing Sales**

Quotes 2 Orders 4 Invoices 7 Sales This Month \$1,906

**Start**

Sales Quote Sales Order Sales Invoice Purchase Invoice

**Favorite Accounts** ▾

Account No.	Name	Balance
10100	Checking account	1,638.40
10200	Saving account	0.00
10300	Petty Cash	98,030.23
10400	Accounts Receivable	72,893.84
20100	Accounts Payable	-51,750.97

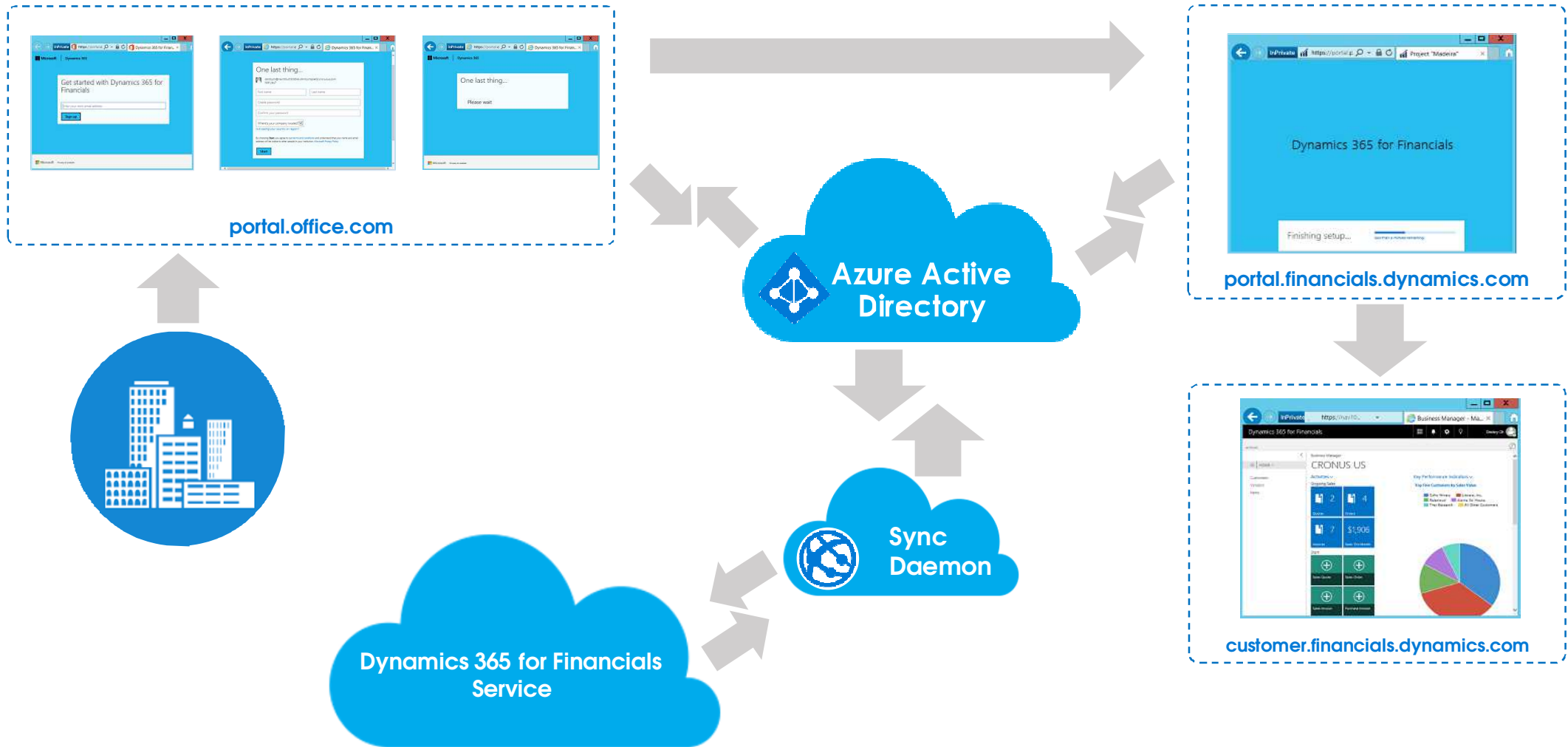
**Trial Balance** ▾

Description	01/03/16..31/03/16	01/04/16..30/04/16
Total Revenue	57,320.45	1,906.40
Total Cost	45,138.70	1,485.40
Gross Margin	12,181.75	421.00
<b>Gross Margin %</b>	<b>21.25</b>	<b>22.08</b>
Operating Expenses	2,000.00	
Operating Margin	10,181.75	421.00
<b>Operating Margin %</b>	<b>17.76</b>	<b>22.08</b>
Other Expenses		
<b>Income before Interest and Tax</b>	<b>10,181.75</b>	<b>421.00</b>

**Value**

All Other Customers  
Trey Research  
Alpine Ski House  
Relecloud  
Coho Winery  
Litware, Inc.

# SaaS – Everything is connected



# SaaS – App Source

AppSource

Apps for Dynamics 365

×

Apps

My organization

More apps ▾

Search ... 🔍

Products

☐ Dynamics 365

☐ Operations

☐ Sales

☐ Financials

☐ Customer Services

☐ Field Services

☐ Project Services Automation

Categories

☐ Analytics

☐ Collaboration

☐ Customer service

☐ Finance

☐ Human resources

☐ IT + administration

☐ Marketing

☐ Operations + supply chain


☐ Productivity

☐ Sales

Industries

Dynamics 365 for Sales


See all



**North52 Business Process Activities**  
By North52  
Dynamics 365

Build simple or complex business rules using point-click editor, eliminates C# and JavaScript coding


Try



**PowerGrid**  
By PowerObjects An HCL Company  
Dynamics 365

Consolidate your editing processes by searching from within a view in your CRM.


Try



**PowerMailChimp**  
By PowerObjects An HCL Company  
Dynamics 365

Connect the powerful, robust, and affordable email platform, MailChimp, with your CRM.


Try



**Versium Predict**  
By Versium Analytics Inc.  
Dynamics 365

Build predictive models, score and generate leads to increase marketing and sales success.

Get




**Timeline**  
By xRM Consultancy  
Dynamics 365


Displays time based data like Activities in an easy to read and visually pleasing way


Try


Dynamics 365 for Customer Services


See all














Find more apps and partners at AppSource ↗

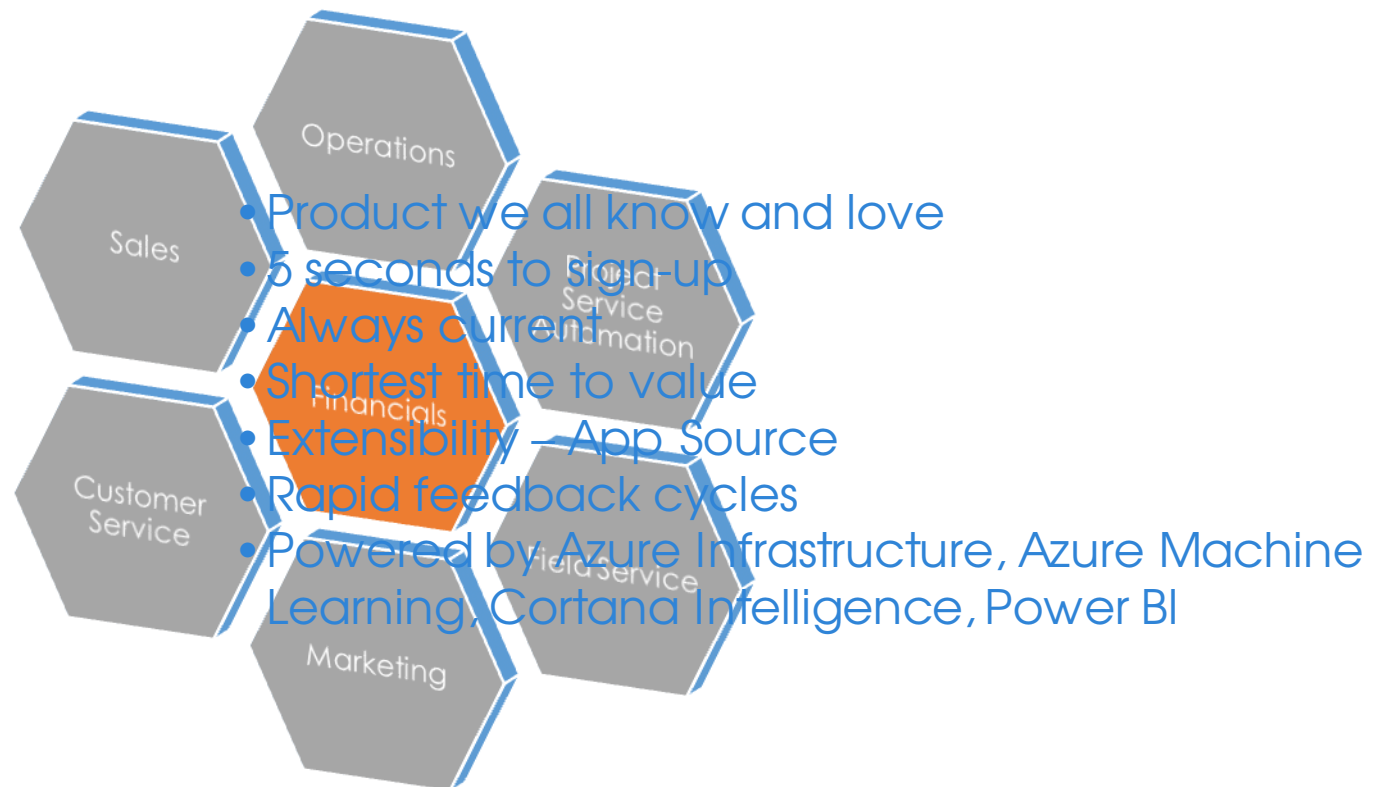
# Dynamics 365



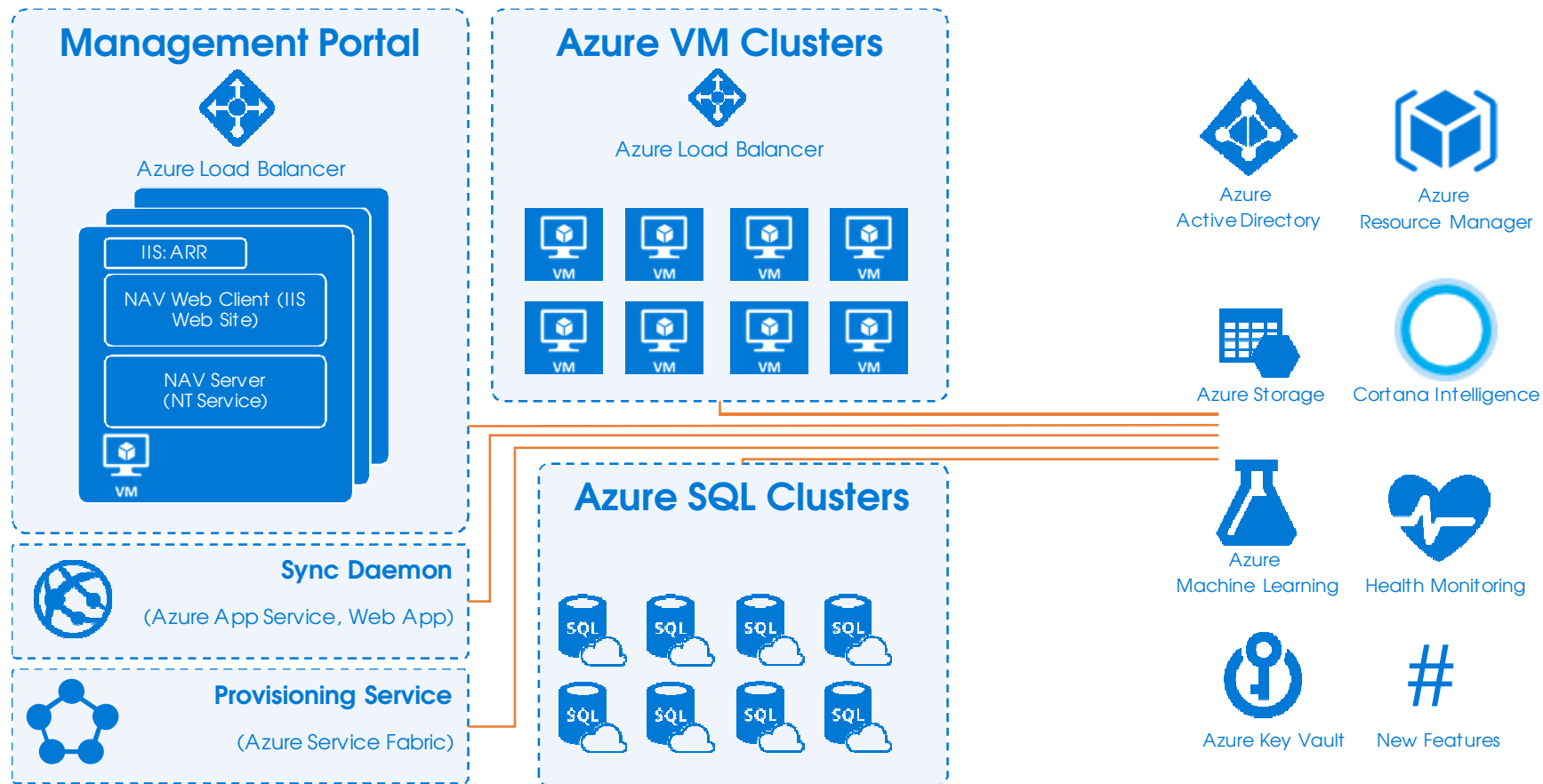
# Dynamics 365 for Financials



# Dynamics 365 for Financials

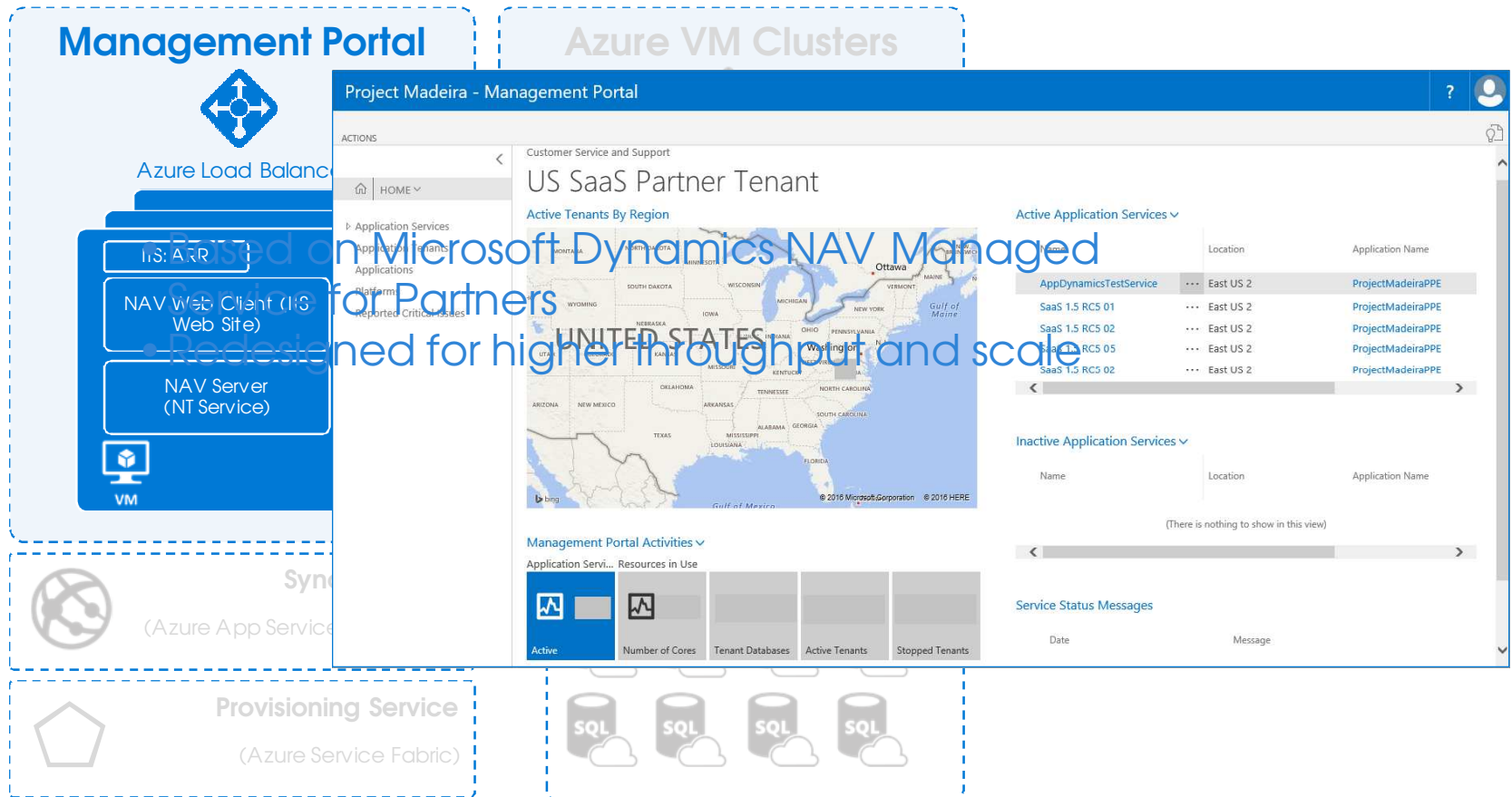


# Dynamics 365 for Financials – high level view





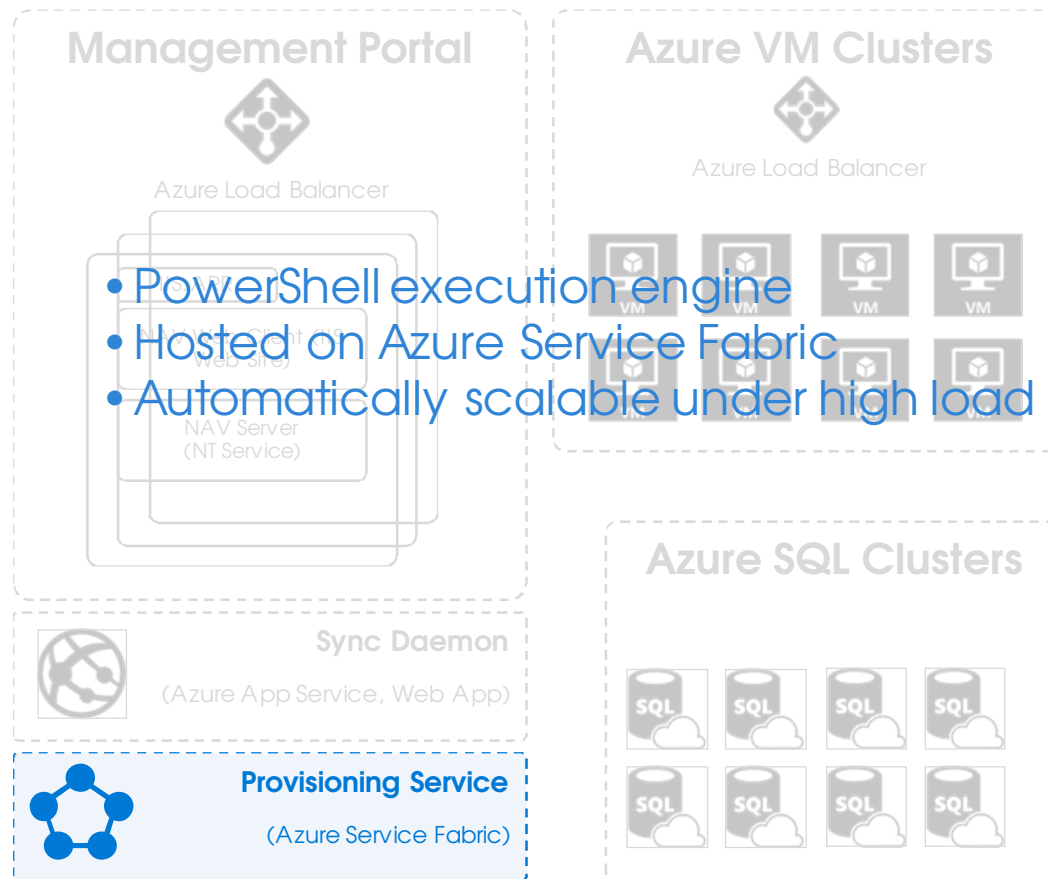
# Management Portal



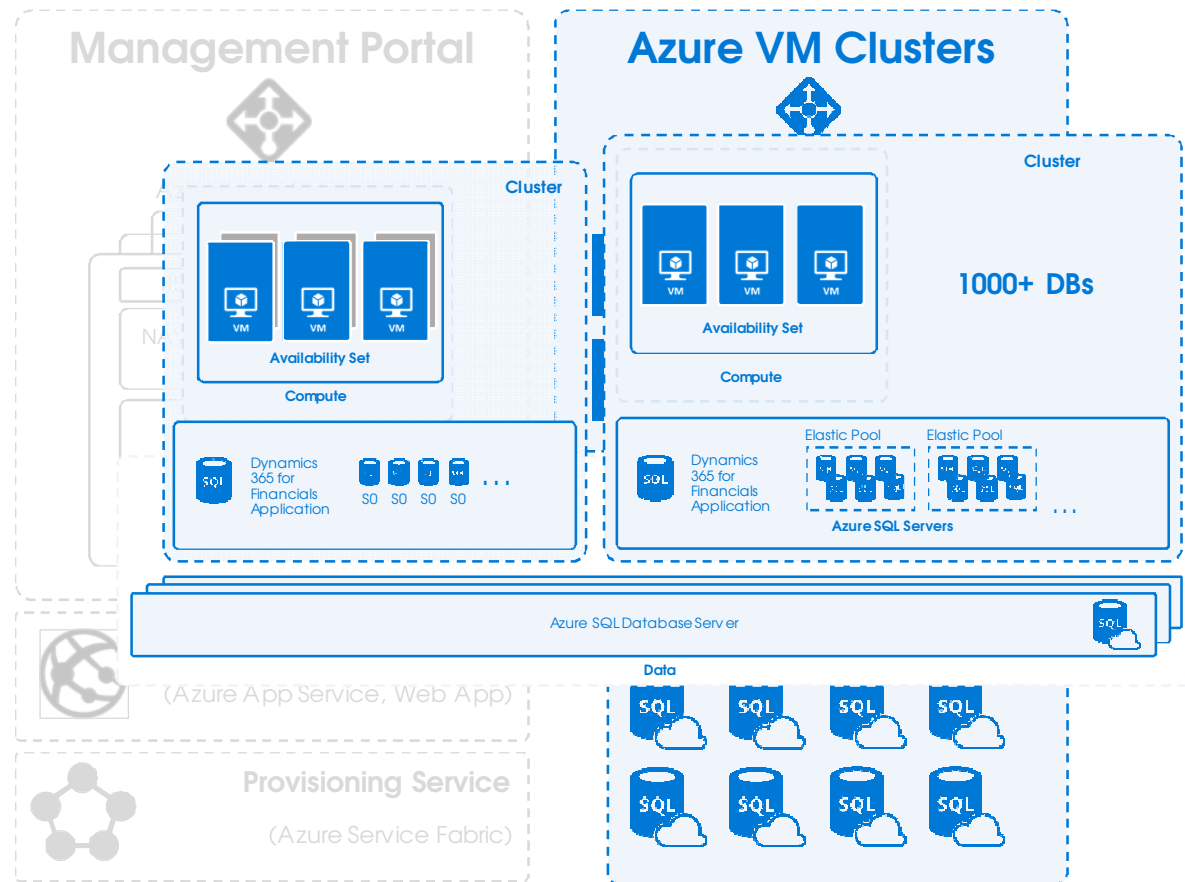
# Sync Daemon



# Provisioning Service



# Dynamics 365 for Financials – Clusters



# Dynamics 365 for Financials – Azure Services



Azure  
Active Directory



Azure  
Resource Manager

- Integration point with Office 365 and Dynamics 365 Services
- JIT user creation based on AAD information
- User license assignment based on AAD information



Azure  
Machine Learning



Cortana Intelligence

- Accurate prediction of future sales and avoiding inventory shortage



Azure Storage



Health Monitoring

- Internal telemetry used for easy troubleshooting
- Hot/Warm/Cold Path monitoring



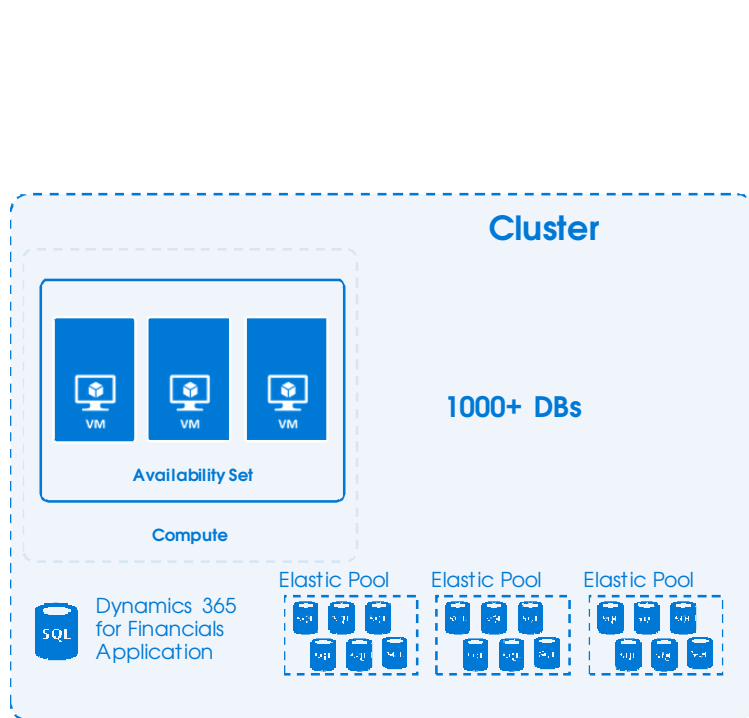
Azure Key Vault



New Features

- All credentials stored outside Cluster resources
- Easy and secure access control

# Improving performance

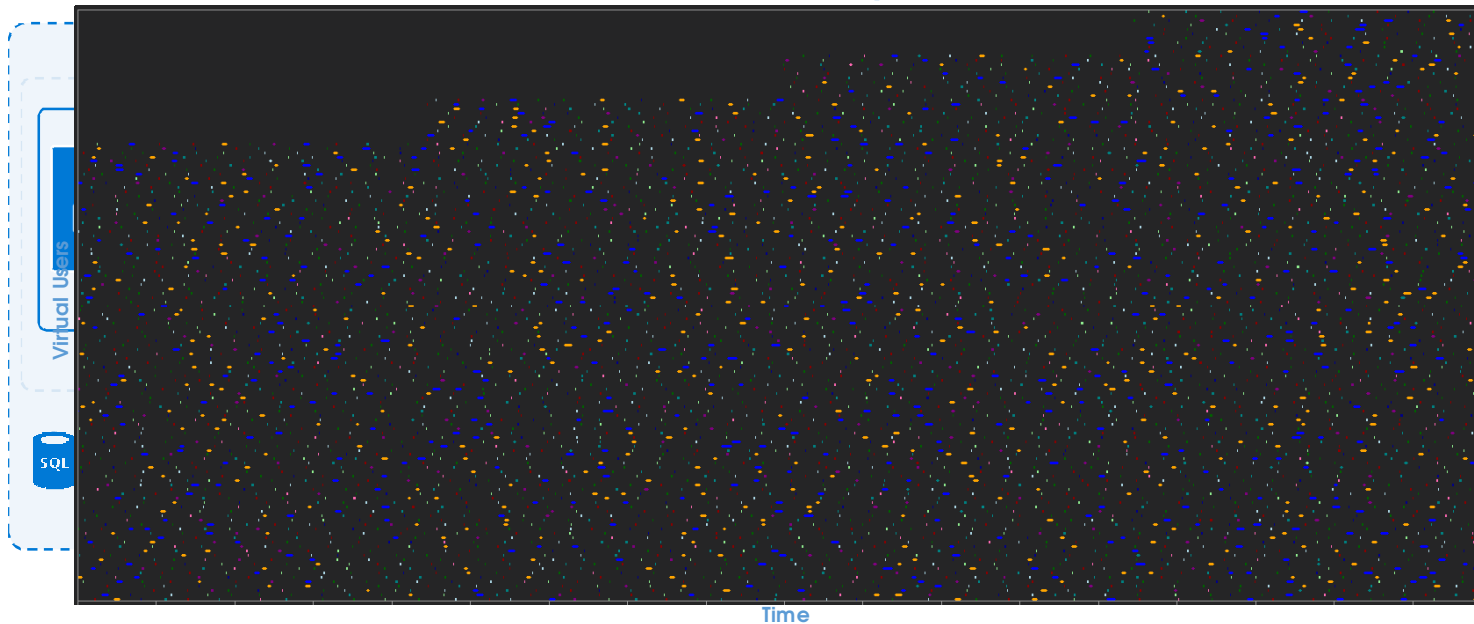


Tests
ChartOfAccountSim
CreateAndPostGLTransaction
CreateAndPostPurchaseInvoice
CreateAndPostSalesInvoice
CreateAndPostVendorPayment
CustomerLookup
GenerateAndDownloadReport
ItemLookup
PurchaseInvoiceLookup
SalesDocLookup
VendorLookup
...

<https://mbs.microsoft.com/partnersource/northamerica/readiness-training/readiness-training-news/VideoSeriesNAVPerformanceTesting>

# Improving performance

Virtual User Activity Chart



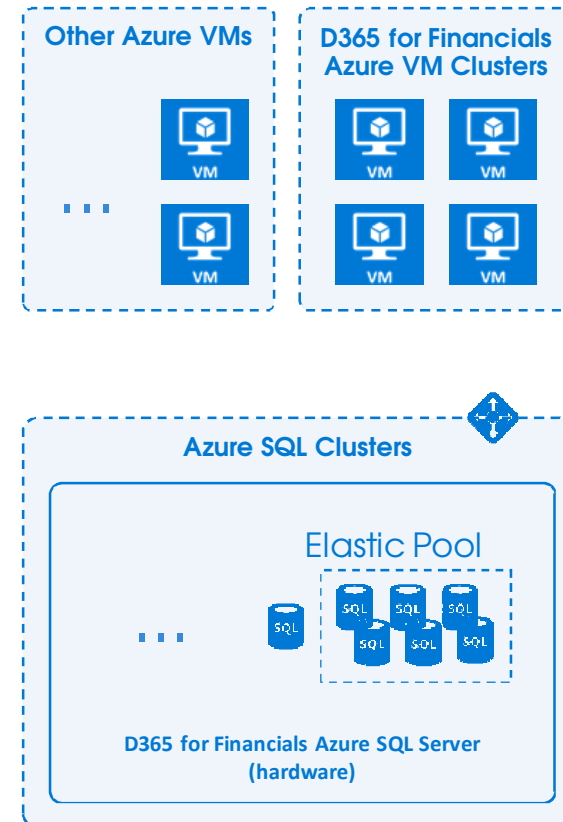
## Tests

ChartOfAccountSim
CreateAndPostGLTransaction
CreateAndPostPurchaseInvoice
CreateAndPostSalesInvoice
CreateAndPostVendorPayment
CustomerLookup
GenerateAndDownloadReport
ItemLookup
PurchaseInvoiceLookup
SalesDocLookup
VendorLookup

...

<https://mbs.microsoft.com/partnersource/northamerica/readiness-training/readiness-training-news/VideoSeriesNAVPerformanceTesting>

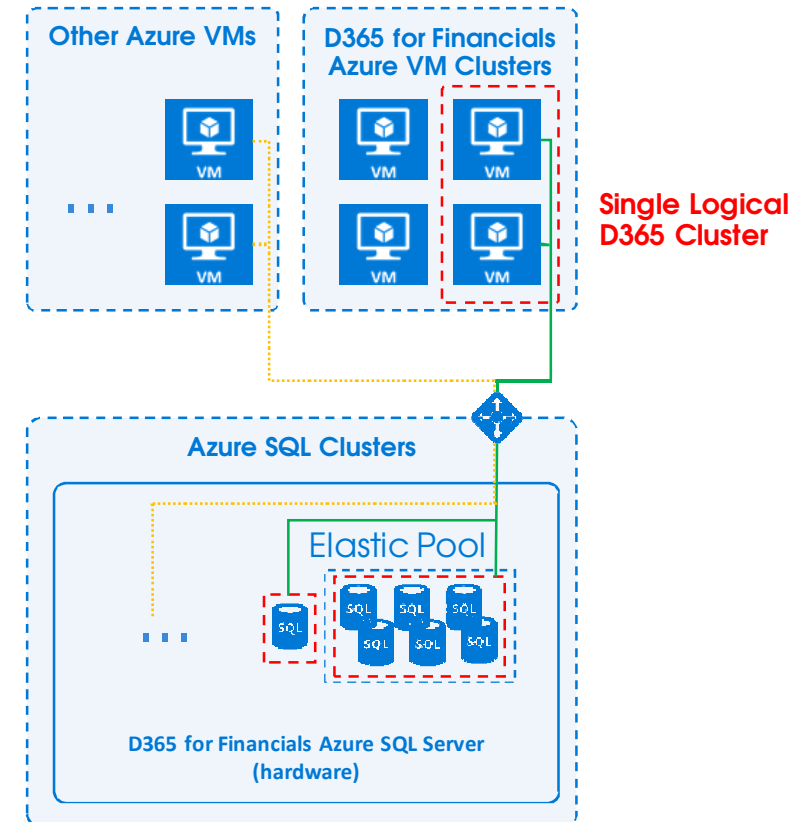
# Azure SQL / SQL Server connectivity improv.





# Azure SQL / SQL Server connectivity improv.

- Platform is reinforced with retrying logic, to withstand intermittent SQL DB connection drops and Azure SQL throttling more efficiently
- Releasing Application DB connections faster and reusing existing connections more efficiently
- Limiting numbers of concurrently opened SQL connections to conform with Azure SQL connections limits



# Task Scheduler for Job Queues

## Problems

- NST was constantly polling for Job Queues consuming memory on the VMs
- When the NAS was running, for each queue/company/tenant there was a new thread/session spun up

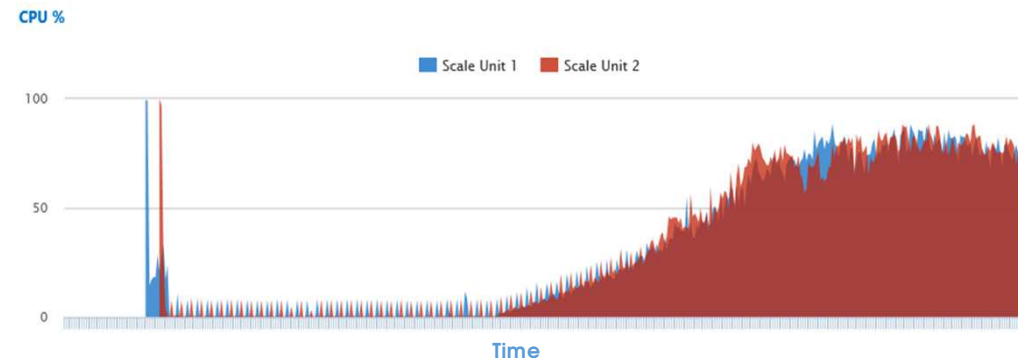
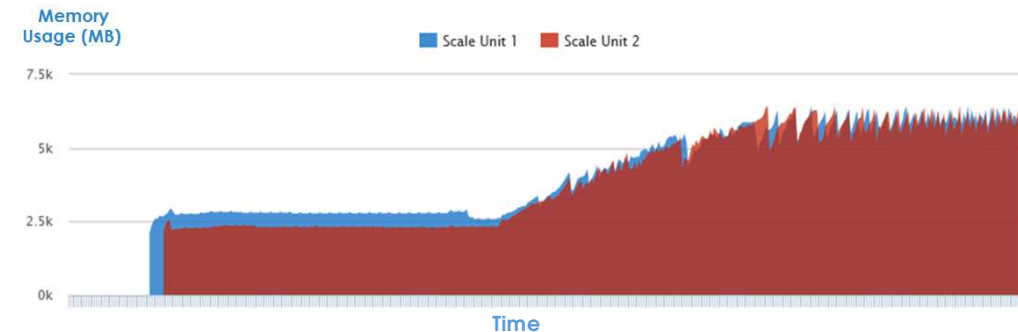
## Platform Improvements

- Task Scheduler has been introduced, and it spins up a set of tasks that analyze the Job Queue Entries in the App Database (used by the platform logic to schedule jobs)
- If the NAV server is idle, then it will only have one thread analyzing all queues

## Application Improvements

- The job queues have been optimized to utilize the Task Scheduler instead of the NAS and save up on resource consumption

NAV Performance Test Results (without Task Scheduler)



# Optimizing resource consumption

## Problems

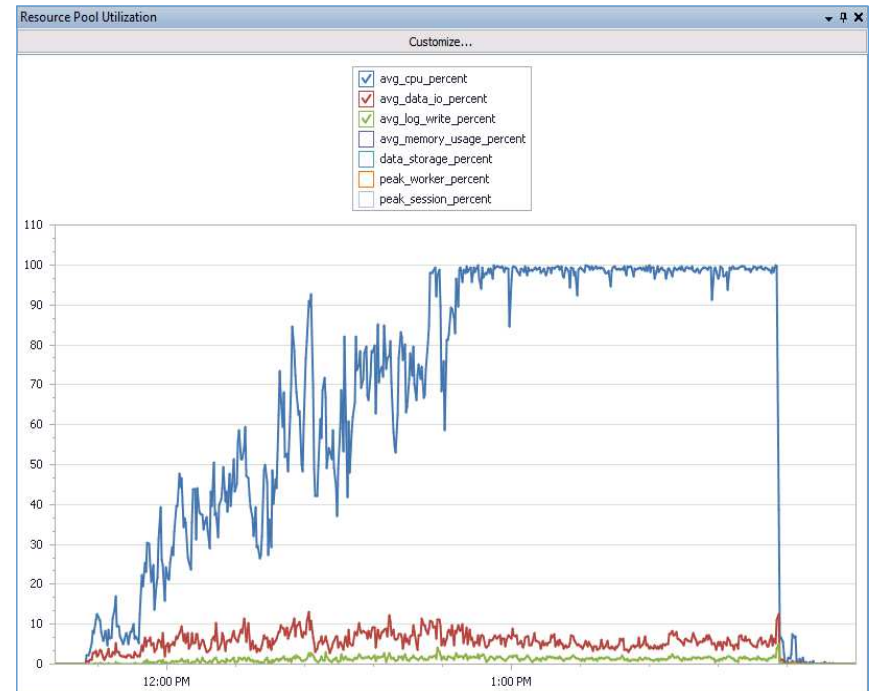
- Session Events table consuming DTUs
- Multiple tables are over-indexed
- In many places key indexes are missing

## Platform Improvements

- Session Events table handling is refactored

## Application Improvements

- Modified indexes to increase performance
- Optimized database querying



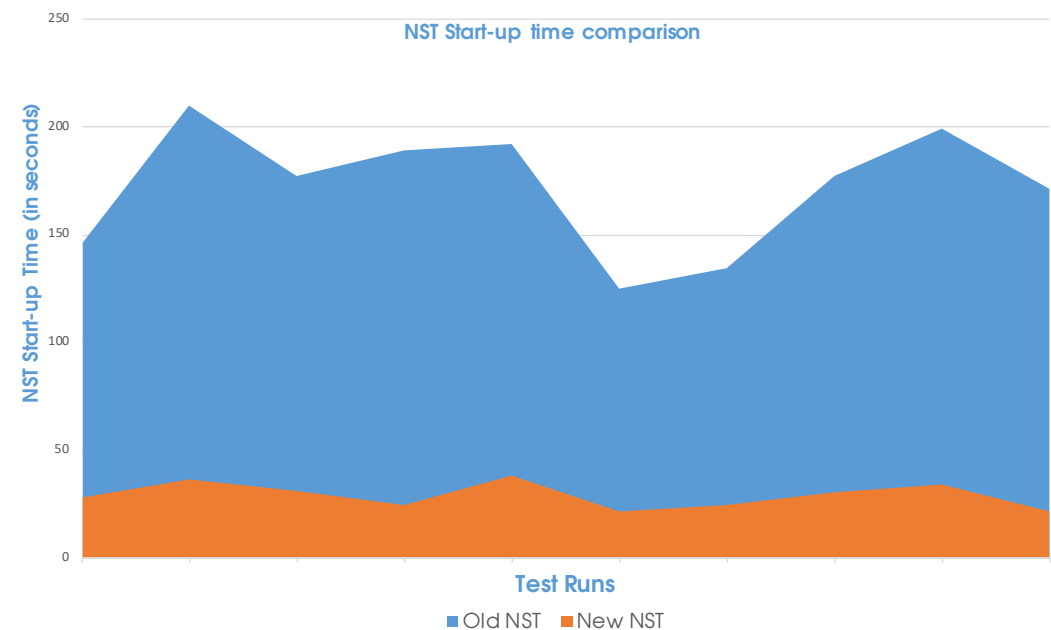
# Faster NST warm-up

## Problems

- NST warm-up (loading needed metadata) was taking too long because of assembly recompilations

## Platform Improvements

- Metadata caching was optimized, both for extensions and the server (and it is created even before the users log-in)
- NST cache sync between virtual machines
- On server start-up, tenants are now mounted in a more controlled manner instead of in parallel, in order to limit the number of SQL connections opened



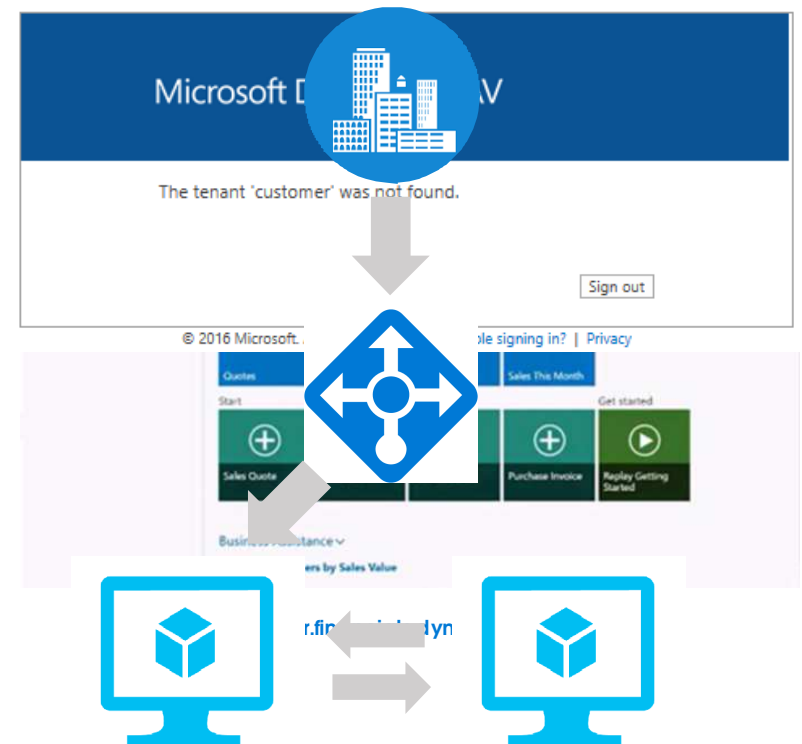
# Just-in-time Tenant Discovery

## Problems

- It took under 30 seconds for the list of tenants to be synchronized between all VMs
- Sometimes users would get a 'tenant not found' message when signing in for the first time

## Platform Improvements

- JIT Tenant Discovery has been introduced, allowing the NST on a certain VM to talk to NSTs on other VMs (via the application database) and synchronize the tenant list on the spot

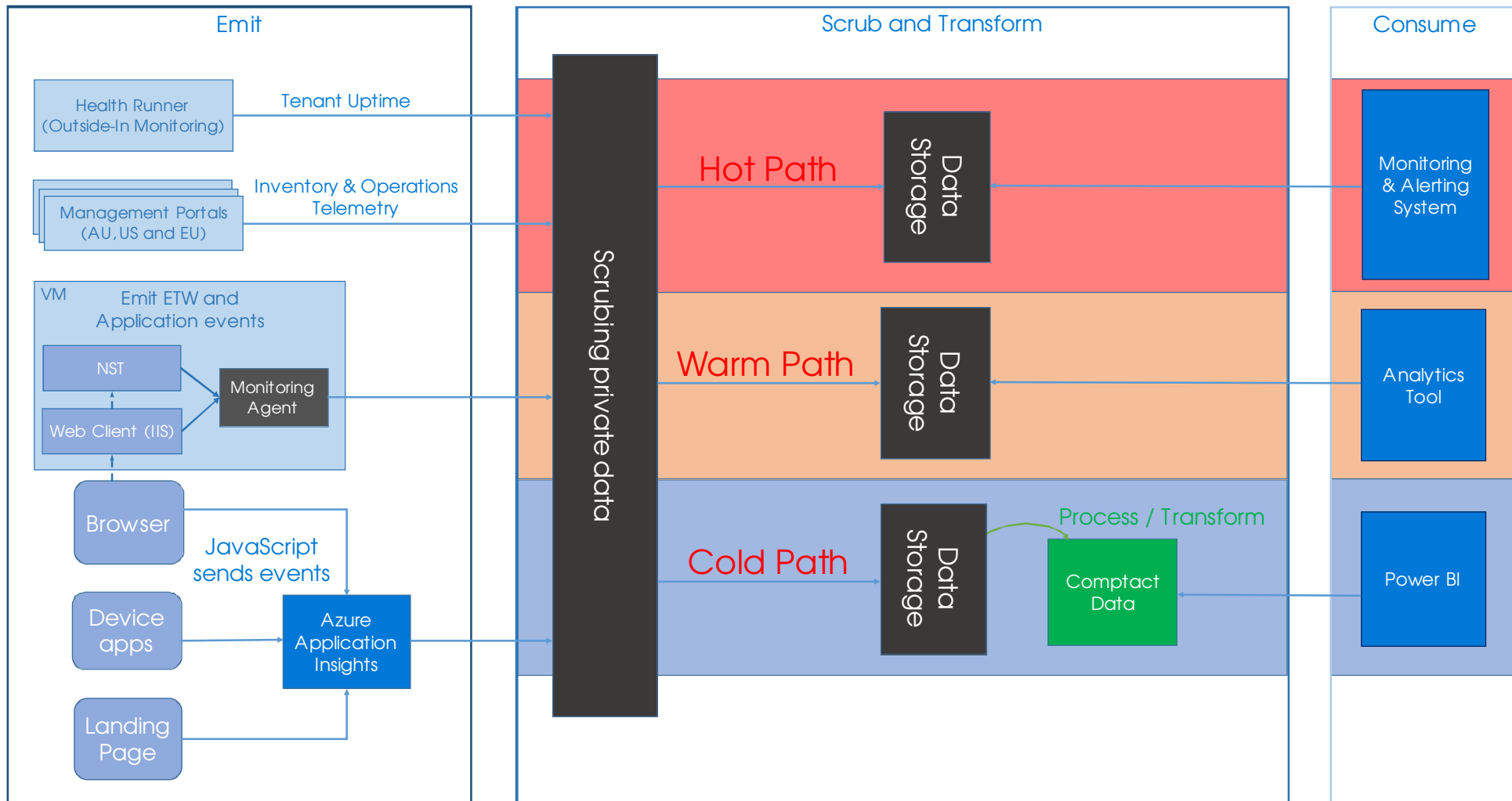


# NAV Platform Improvements

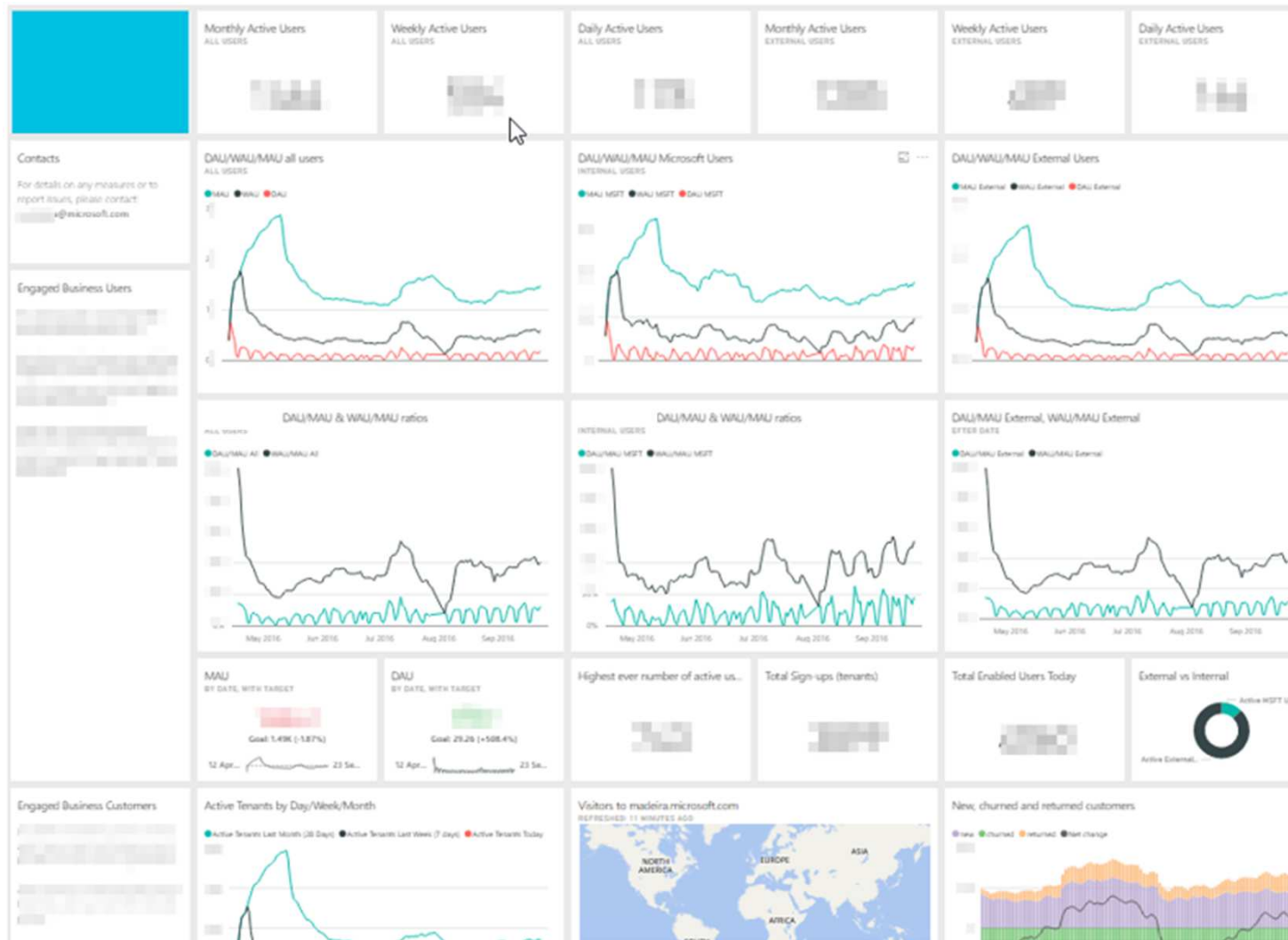
- Azure SQL Connectivity Improvements
- Task Scheduler for Job Queues
- Optimized resource consumption
- Faster NST warm-up
- Reduced COGS when running on Azure SQL
- Added the possibility for NST to discover tenants just in time

**Available in NAV 2017**

# Monitoring, Telemetry & Insights



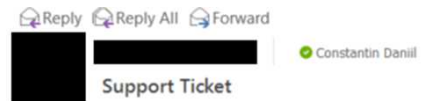
# Monitoring, Telemetry & Insights





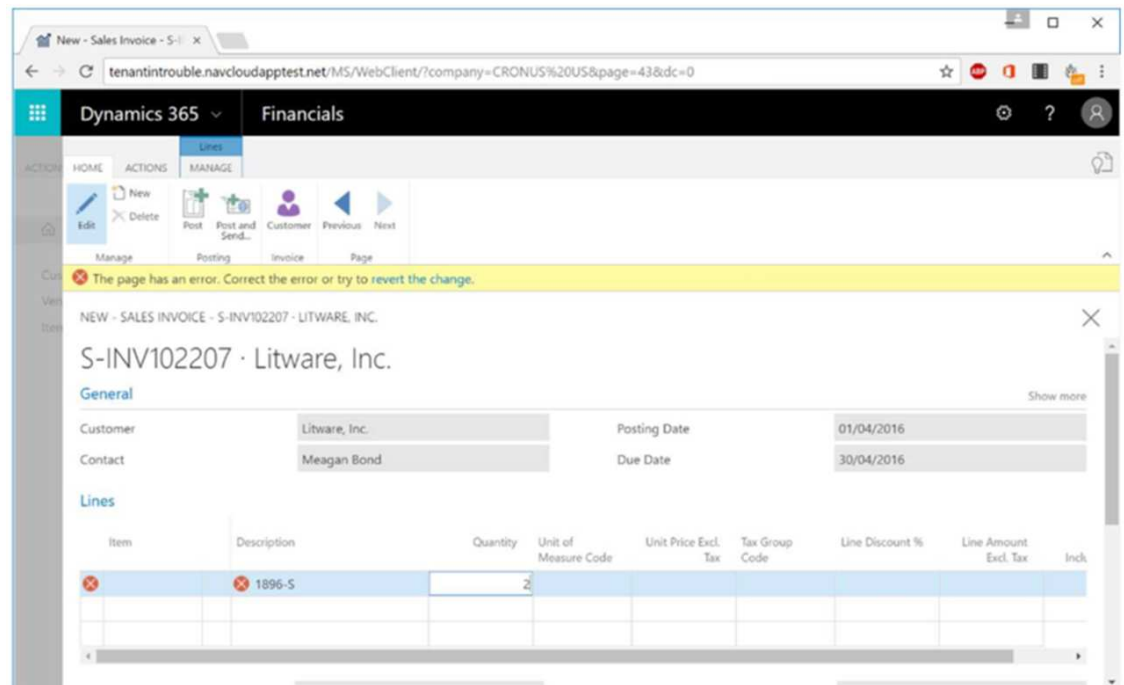
# Demo: Troubleshooting an Issue

- Customers runs into an issue when they try to post a sales invoice
- They contact support via email
- A ticket is created



Dear support,

When I am trying to create my first Sales Invoice, I am getting the following error.



Thanks for your help.  
Tenant In Trouble Inc.

# Demo: Troubleshooting an Issue

- We identify the customer and the environment they are running on
- We identify the type of error they have encountered
- We identify the time frame during which the error has occurred
- We connect to the relevant cluster
- We create a query to obtain the necessary telemetry information

Reply Reply All Forward  
[Redacted] Constantin Danil  
Support Ticket

Dear support,

When I am trying to create my first Sales Invoice, I am getting the following error.

New - Sales Invoice - S-INV102207 - LITWARE, INC.

S-INV102207 · Litware, Inc.

General

Customer: Litware, Inc. Posting Date: 01/04/2016

Contact: Meagan Bond Due Date: 30/04/2016

Lines

Item	Description	Quantity	Unit of Measure Code	Unit Price Excl. Tax	Tax Group Code	Line Discount %	Line Amount Excl. Tax	Incl. Tax
1896-S	1896-S	2	Z					

Thanks for your help.  
Tenant In Trouble Inc.

# Demo: Troubleshooting an Issue

The screenshot shows the Microsoft Dynamics NAV Troubleshooting Center interface. The top menu bar includes Home, File, Connections, Share, View, Tools, Monitoring, and Help. The left sidebar shows a tree view with 'Connections' expanded. The main area displays a query result for the query `1 ALErrors("sale","tenantintrouble",ago(1d),ago(1h))`.

The query result is displayed in a table with the following columns: **Timestamp**, **alternate tenantid**, **sessionid**, **alttrigger**, and **failureMessage**.

Timestamp	alternate tenantid	sessionid	alttrigger	failureMessage
2016-10-23 22:15:12.7100480	troubleshootingdemo.financials.dynamics.troubleshootingdemo.financials.dynamics	73	Description - OnValidate	AL ErrorCode: Testfield Message: Blocked must be equal to 'No' in Item: No.= 1896-S. Current value is 'Yes'. <ii>
2016-10-23 22:15:06.8847052	troubleshootingdemo.financials.dynamics.troubleshootingdemo.financials.dynamics	73	No. - OnValidate	AL ErrorCode: Testfield Message: Blocked must be equal to 'No' in Item: No.= 1896-S. Current value is 'Yes'. <ii>
2016-10-24 11:27:01.3935590	tenantintrouble.navcloudapptest.net	22	Quantity - OnValidate	AL ErrorCode: DBRecordNotFound Message: The Item does not exist. Identification fields and values: No.= " <ii>
2016-10-24 11:06:04.7706720	tenantintrouble.navcloudapptest.net	22	Description - OnValidate	AL ErrorCode: Testfield Message: Blocked must be equal to 'No' in Item: No.= 1896-S. Current value is 'Yes'. <ii>
2016-10-24 09:26:25.4269632	tenantintrouble.navcloudapptest.net	12	Description - OnValidate	AL ErrorCode: Testfield Message: Blocked must be equal to 'No' in Item: No.= 1896-S. Current value is 'Yes'. <ii>

At the bottom of the window, it shows 'Done (00:02:019): 11 records' and 'SELECTED: 1'. The status bar at the bottom right indicates 'UTC: 2016-10-24 14:17:45'.

# Demo: Troubleshooting an Issue

- We identify the entry relating to the customer's incident
- We determine the session id and the unique server session id
- We retrieve all the operational logs with the same server session id
- We try to reproduce the bug

The screenshot shows the Microsoft Dynamics NAV 2016 Troubleshooting Center. The left pane displays the 'Connections' tree. The right pane shows a list of log entries with columns for 'timestamp', 'event\_Name', and 'pageName'. The log entries are as follows:

timestamp	event_Name	pageName
2016-10-24 09:25:13.9870000	Business Manager Role Center	Business Manager Role Center
2016-10-24 09:25:14.5430000	InvokeExtensibilityMethod Help And Chart Wrapper.BusinessChart	Help And Chart Wrapper
2016-10-24 09:25:19.9890000	O365 Getting Started	O365 Getting Started
2016-10-24 09:25:23.6870000	CloseForm O365 Getting Started	O365 Getting Started
2016-10-24 09:25:31.1900000	Navigate Business Manager Role Center.	Business Manager Role Center
2016-10-24 09:25:35.6020000	Item List	Item List
2016-10-24 09:25:39.1210000	Invoke action Item List.	Item List
2016-10-24 09:25:40.7720000	Item Card	Item Card
2016-10-24 09:25:42.7920000	SaveValue Item Card.Blocked	Item Card
2016-10-24 09:25:45.9930000	CloseForm Item Card	Item Card
2016-10-24 09:25:53.9150000	Invoke action Item List.	Item List
2016-10-24 09:25:54.4520000	PageSearchForm	PageSearchForm
2016-10-24 09:25:56.6580000	UI.PageSearch PageSearchForm.	PageSearchForm
2016-10-24 09:26:01.4190000	UI.PageSearch PageSearchForm.Name	PageSearchForm
2016-10-24 09:26:02.3630000	Sales Invoice List	Sales Invoice List
2016-10-24 09:26:04.6430000	Invoke action Sales Invoice List.Control.New	Sales Invoice List
2016-10-24 09:26:06.9430000	Sales Invoice	Sales Invoice
2016-10-24 09:26:06.9490000	ActivateControl Sales Invoice.Sell-to Customer Name	Sales Invoice
2016-10-24 09:26:09.5000000	Invoke action Sales Invoice.Sell-to Customer Name	Sales Invoice
2016-10-24 09:26:15.3800000	Invoke action Lookupform.	Lookupform
2016-10-24 09:26:21.6730000	ActivateControl Sales Invoice Subform.Description	Sales Invoice Subform
2016-10-24 09:26:22.5900000	Invoke action Sales Invoice Subform.Description	Sales Invoice Subform
2016-10-24 09:26:24.5830000	Invoke action Lookupform.	Lookupform
2016-10-24 09:26:24.8530000	ActivateControl Sales Invoice Subform.Description	Sales Invoice Subform

The status bar at the bottom indicates 'Done (00:01:76): 24 records'.

# Demo: Troubleshooting an Issue

The screenshot displays the Dynamics 365 Business Manager interface. The left pane shows the 'Business Manager' dashboard for 'CRONUS US'. It includes a navigation pane with 'Customers', 'Vendors', and 'Items'. The main area features a 'Want to try with your own company data for a free 30-day trial?' banner, a 'Business Manager' section with 'Activities' and 'Ongoing Sales' tiles, and a 'Business Assistance' section with a 'Top Five Customers by Sales Value' pie chart. The right pane shows a 'Connections' window with a list of events and a code editor with SQL queries.

**Business Manager Dashboard Data:**

Category	Value
Quotes	2
Orders	4
Invoices	10
Sales This Month	\$1,906

**Top Five Customers by Sales Value:**

Customer	Value
Litware, Inc.	High
Coho Winery	Medium-High
Relicloud	Medium
Alpine Ski House	Low-Medium
Trey Research	Low
All Other Customers	Low

**Connections Window:**

Code Editor:

```
1 ALEErrors("sale", "tenantintrouble", ago(1d), ago(1h))
2
3 SessionsIdsFromUserSessionId(@'12', {partialTenantUrl})
4
5 UserLogsFromClientSessionId(@'ac327b1e-b1cc-41de-b3fd')
```

Event Log:

Timestamp	Event Name
2016-10-24 09:25:13.9870000	Business Manager Role Center
2016-10-24 09:25:14.5430000	InvoiceExtensibilityMethod Help And Chart Wrapper.BusinessChart
2016-10-24 09:25:19.9890000	O365 Getting Started
2016-10-24 09:25:23.6870000	CloseForm O365 Getting Started
2016-10-24 09:25:31.1900000	Navigate Business Manager Role Center.
2016-10-24 09:25:35.6020000	Item List
2016-10-24 09:25:39.1210000	Invoice action Item List.
2016-10-24 09:25:40.7720000	Item Card
2016-10-24 09:25:42.7920000	SaveValue Item Card Blocked
2016-10-24 09:25:45.9930000	CloseForm Item Card
2016-10-24 09:25:53.9150000	Invoice action Item List.
2016-10-24 09:25:54.4520000	PageSearchForm
2016-10-24 09:25:56.6580000	UIPageSearch PageSearchForm.
2016-10-24 09:26:01.4190000	UIPageSearch PageSearchForm.Name
2016-10-24 09:26:02.3630000	Sales Invoice List
2016-10-24 09:26:04.6430000	Invoice action Sales Invoice List.Control_New
2016-10-24 09:26:06.9430000	Sales Invoice
2016-10-24 09:26:06.9490000	ActivateControl Sales Invoice Sell-to Customer Name
2016-10-24 09:26:09.5000000	Invoice action Sales Invoice Sell-to Customer Name
2016-10-24 09:26:15.3800000	Invoice action Lookupform.
2016-10-24 09:26:21.6730000	ActivateControl Sales Invoice Subform.Description
2016-10-24 09:26:22.5900000	Invoice action Sales Invoice Subform.Description
2016-10-24 09:26:24.5830000	Invoice action Lookupform.
2016-10-24 09:26:24.8530000	ActivateControl Sales Invoice Subform.Description

# Demo: Troubleshooting an Issue

The screenshot displays the Dynamics 365 Financials interface. The top navigation bar shows 'Dynamics 365' and 'Financials'. A search bar is present with the text 'Invo'. Below the search bar, a list of 23 search results is shown, categorized by 'Name' and 'Department'. The results include various invoice-related pages and reports.

Name	Department
Invoices	Home
Ongoing Purchase Invoices	Home
Overdue Purch. Invoice Amount	Home
Purch. Invoices Due Next Week	Home
Overdue Sales Invoice Amount	Home
Sales Invoices	Sales
Post In Sales Invoices	Sales
Purchase Invoices	Purchasing
Posted Purchase Invoices	Purchasing
Sales Invoices	Departments/Financial Management/Receivables
Daily Invoicing Report	Financial Management/Receivables/Reports
Sales Invoice	Financial Management/Receivables/Documents
Posted Sales Invoices	Financial Management/Receivables/History
Purchase Invoices	Departments/Financial Management/Payables
Purchase Invoice	Financial Management/Payables/Documents
Posted Purchase Invoices	Financial Management/Payables/History
Sales Invoices	Departments/Sales & Marketing/Order Processing
Sales Invoice Nos.	Sales & Marketing/Order Processing/Reports
Sales Invoice	Sales & Marketing/Order Processing/Documents
Posted Sales Invoices	Departments/Sales & Marketing/History

In the background, a window titled 'Connections' is visible, showing a list of events. The events are listed in a table with columns 'timestamp' and 'event\_name'.

timestamp	event_name
2016-10-24 09:25:13.9870000	Business Manager Role Center
2016-10-24 09:25:14.5430000	InvoiceExtensibilityMethod Help And Chart Wrapper.BusinessChart
2016-10-24 09:25:19.9890000	O365 Getting Started
2016-10-24 09:25:23.6870000	CloseForm O365 Getting Started
2016-10-24 09:25:31.1900000	Navigate Business Manager Role Center.
2016-10-24 09:25:35.6020000	Item List
2016-10-24 09:25:39.1210000	Invoke action Item List.
2016-10-24 09:25:40.7720000	Item Card
2016-10-24 09:25:42.7920000	SaveValue Item Card Blocked
2016-10-24 09:25:45.9930000	CloseForm Item Card
2016-10-24 09:25:53.9150000	Invoke action Item List.
2016-10-24 09:25:54.4520000	PageSearchForm
2016-10-24 09:25:56.6580000	UIPageSearch PageSearchForm.
2016-10-24 09:26:01.4190000	UIPageSearch PageSearchForm.Name
2016-10-24 09:26:02.3630000	Sales Invoice List
2016-10-24 09:26:04.6430000	Invoke action Sales Invoice List.Control_New
2016-10-24 09:26:06.9430000	Sales Invoice
2016-10-24 09:26:06.9490000	ActivateControl Sales Invoice Sell-to Customer Name
2016-10-24 09:26:09.5000000	Invoke action Sales Invoice Sell-to Customer Name
2016-10-24 09:26:15.3800000	Invoke action Lookupform.
2016-10-24 09:26:21.6730000	ActivateControl Sales Invoice Subform.Description
2016-10-24 09:26:22.5900000	Invoke action Sales Invoice Subform.Description
2016-10-24 09:26:24.5830000	Invoke action Lookupform.
2016-10-24 09:26:24.8530000	ActivateControl Sales Invoice Subform.Description



# Demo: Troubleshooting an Issue

The screenshot displays the Microsoft Dynamics 365 Financials interface. The main window shows a new sales invoice for 'Coho Winery' (S-INV102209) with a posting date of 01/04/2016 and a due date of 01/05/2016. A yellow error bar at the top states: 'The page has an error. Correct the error or try to revert the change.'

The 'Lines' section shows a table with columns: Item, Description, Quantity, Unit of Measure Code, Unit Price Excl. Tax, Tax Group Code, and Line Discount. The first line is highlighted in red and shows a validation error: 'Validation Results: Blocked must be equal to 'No' in Item: No. = 1896-S. Current value is 'Yes'.'

The 'Invoice Details' section shows the shipment date as 01/04/2016, payment terms as 1M(8D), and payment service as 'Demo Sandbox Account - PayPal Payments Standard'.

On the right side, a developer console is open, showing a JavaScript error: 'ALErrors("sale", "tenantintrouble", ago(1d), ago(1h))'. Below the error, a list of events is displayed, including 'Business Manager Role Center', 'O365 Getting Started', 'CloseForm O365 Getting Started', 'Navigate Business Manager Role Center', 'Item List', 'Invoice action Item List', 'Item Card', 'SaveValue Item Card Blocked', 'CloseForm Item Card', 'Invoice action Item List', 'PageSearchForm', 'UIPageSearch PageSearchForm', 'UIPageSearch PageSearchForm.Name', 'Sales Invoice List', 'Invoice action Sales Invoice List.Control\_New', 'Sales Invoice', 'ActivateControl Sales Invoice Sell-to Customer Name', 'Invoice action Sales Invoice Sell-to Customer Name', 'Invoice action Lookupform', 'ActivateControl Sales Invoice Subform.Description', 'Invoice action Sales Invoice Subform.Description', 'Invoice action Lookupform', and 'ActivateControl Sales Invoice Subform.Description'.

# Demo: Troubleshooting an Issue

The screenshot displays the Microsoft Dynamics NAV development environment. The top menu bar includes Home, File, Connections, Share, View, Tools, Monitoring, and Help. The left sidebar shows the 'Connections' pane with a tree view containing 'Connections' and 'ancials.dynamics'. The main workspace is divided into three panes:

- Script Pane:** Contains an AL test script with the following lines:

```
1 ALErrors("sale", "tenantintrouble", ago(1d), ago(1h))
2
3 SessionsIdsFromUserSessionId(@'12', {partialTenantUrl})
4
5 UserLogsFromClientSessionId(@'ac327b1e-b1cc-41de-b3fd-5cd12dce5861')
```
- Table Pane:** Displays a table with columns 'sessionid', 'allTrigger', and 'failureMessage'. The first row shows data for 'ancials.dynamics' with '79' in the 'allTrigger' column and a detailed error message in the 'failureMessage' column. A mouse cursor is pointing at the error message.
- Results Pane:** Shows the execution results of the script. It indicates 'Done (00:04:324): 11 records' and 'SELECTED: 1'. The 'failureMessage' pane is expanded, showing the following details:
  - AL ErrorCode:**
  - TestField:**
  - Message:** Blocked must be equal to 'No' in Item: No.=1896-S. Current value is 'Yes'.
  - StackTrace:**

```
"Sales Line"(Table 37): "No. - OnValidate"(Trigger) line 87
"Sales Line"(Table 37): "Description - OnValidate"(Trigger) line 36
```
  - .NET:**
    - Type: Microsoft.Dynamics.Nav.Types.NavTestFieldException
    - FieldName: Blocked
    - TableName: Item
    - SuppressMessage: false
    - SuppressExceptionCreatedEvent: false
    - FatalityScope: None
    - Message: <i>Blocked must be equal to 'No' in Item: No.=1896-S. Current value is 'Yes'.</i>
    - StackTrace:

```
at Microsoft.Dynamics.Nav.Runtime.NavRecord.TestFieldError(NCLMetaField metaField, String shouldBeValue)
```

The bottom status bar shows the UTC time: 2016-10-24 14:28:01.



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Q & A

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