



Hewlett Packard Enterprise

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Betriebsführung ohne IT- auf einem Auge blind!

Das Konzept

Turbinendaten

Park IT

Security

HPE Windpark Manager

Control Center

SCADA

CMS

Direct

Network

Konsolidierte Information

CMS

Direct

Systems

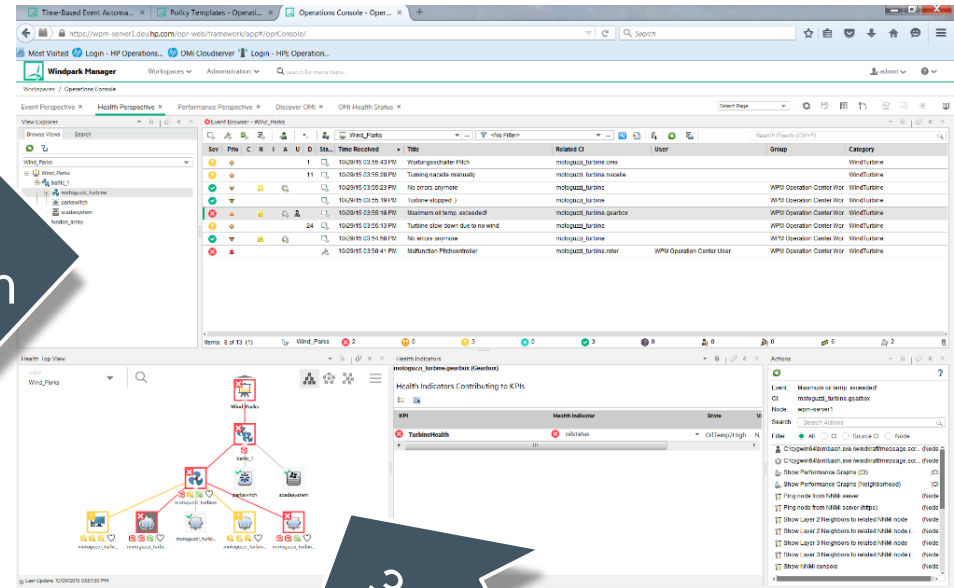
SCADA

CMS

Direct

Access

360° Management



Die Vorteile



Turbinendaten + Netzwerk, Systeme, Applikationen + Sicherheit: Gesamtüberblick, höhere Verfügbarkeit
Windpark + Control Center Management kombiniert: Vereinheitlichung, spart Lizenz- und Trainingskosten
Konsolidiert, herstellerunabhängig: Senkung der Betriebskosten, Effizienzsteigerung der Teams
Graphische Darstellung der Abhängigkeiten: Bessere Einschätzung der Auswirkungen eines Fehlers



Automatisches Entdecken: Ist-Zustand, sehr schnelle Inbetriebnahme
Korrelation, Root Cause Analyse, Operator Konzept: Alarmreduzierung, Fokussierung, schnelle Behebung
Automatische und vordefinierte Aktionen: Sparen Zeit und Geld, entlasten Operator, vermeiden Fehler



Security Monitoring, Patch Management, Verschlüsselung: Erfüllen IT Sicherheitsgesetz (V, I, V)
Robuste, mehrstufige Architektur: Skaliert, geographisch verteilt, Aufgabenverteilung, Zusammenführung

Turbinen- und IT Management: Automatische Inventarisierung

The screenshot displays the Windpark Manager 4.0 interface. The browser address bar shows the URL `16.57.46.244.xip.io/opr-web/framework/app#/dashboards/pageUid360/`. The application header includes the logo, version number, and navigation options like 'Arbeitsbereiche' and 'Verwaltung'. The main content area shows a 'Hierarchy' view of 'Wind_Parks'. A red box highlights a specific tree structure under 'Wind_Parks' with the following components:

- Windpark (baltic_1)
- Turbinen mit Komponenten (motoguzzi_turbine and its sub-components: motoguzzi_turbine.cms, motoguzzi_turbine.gearbox, motoguzzi_turbine.generator, motoguzzi_turbine.nacelle, motoguzzi_turbine.rotor)
- IT-Komponenten (parkswitch and scadasystem)

Each component in the hierarchy has a green checkmark to its right, indicating successful inventory. The bottom status bar shows the last update time: 'Letzte Aktualisierung: 27.10.2015 12:44:21'.

Automatisierte Abläufe: "Nutzlast" von Ereignissen

The screenshot displays the Windpark Manager Operations Console interface. The main window is titled "Event Browser - Wind_Parks" and shows a table of events. The table has columns for "Sev", "Prio", "C", "N", "I", "A", "U", "D", "Sta...", "Time Received", "Title", "Related CI", "User", "Group", and "Category". A red box highlights the "Prio" column with the text "Priorität „Mittel“". Another red box highlights the "Sta..." column with the text "Status „Offen“". A third red box highlights the "Title" column with the text "Ereignis „Turbine Down!“". A fourth red box highlights the "User" column with the text "Kein User".

Below the event browser, there is a "Health Top View" section showing a "Service Baum" (Service Tree) diagram. A red box highlights the diagram with the text "Service Baum".

To the right of the service tree is a "Health Indicators" section for "motoguzzi_turbine (Wind Turbine)". It shows a table of "Health Indicators Contributing to KPIs". A red box highlights this section with the text "„Health Indicators“".

On the far right, there is an "Actions" panel with a list of actions such as "Show Performance Graphs (CI)", "Ping node from NNMI server", and "Set Turbine Maintenance Mode OFF".

Automatisierte Abläufe: “Nutzlast” von Ereignissen

The screenshot displays the HP Operations Console interface for a Windpark. The main window shows an event titled "Turbine up" for the component "motoguzzi_turbine" at 10/29/15 02:58:24 PM. A large green box with the text "Park OK" is overlaid on the event details. The interface includes a View Explorer on the left showing a tree structure of components, a Health Top View at the bottom left showing a hierarchical tree of health indicators, and a Health Indicators panel at the bottom center showing "TurbineHealth" with sub-indicators "TurbineStatus" and "TurbineStartStop" both in a "Normal" state. An Actions panel on the right lists various actions like "Show Performance Graphs" and "Ping node from NNMI server".

Sev	Prio	C	N	I	A	U	D	Sta...	Time Received	Title	Related CI	User	Group	Category
✓									10/29/15 02:58:24 PM	Turbine up	motoguzzi_turbine		WPM Operation Center Wor	WindTurbine

KPI	Health Indicator	State	V...
✓ TurbineHealth	✓ TurbineStatus	Normal	N
	✓ TurbineStartStop	StartOK	N

Automatisierte Abläufe: "Nutzlast" von Ereignissen

The image shows a monitoring interface with two main panels. The left panel, titled "Health Top View", displays a hierarchical tree of components under "Wind_Parks". A red box highlights a "TurbineHealth" component with a red 'X' icon, labeled "Turbinenproblem". A green box highlights a subtree of components, labeled "Park OK". Another green box highlights a subtree of components, labeled "IT OK". The right panel, titled "Health Indicators", shows a table of health indicators for "motoguzzi_turbine (Wind Turbine)". A red box highlights the "TurbineHealth" KPI, which is in a failed state. Below the table, the text "Turbinenproblem" is displayed.

Health Top View

VIEW
Wind_Parks

Health Indicators

motoguzzi_turbine (Wind Turbine)

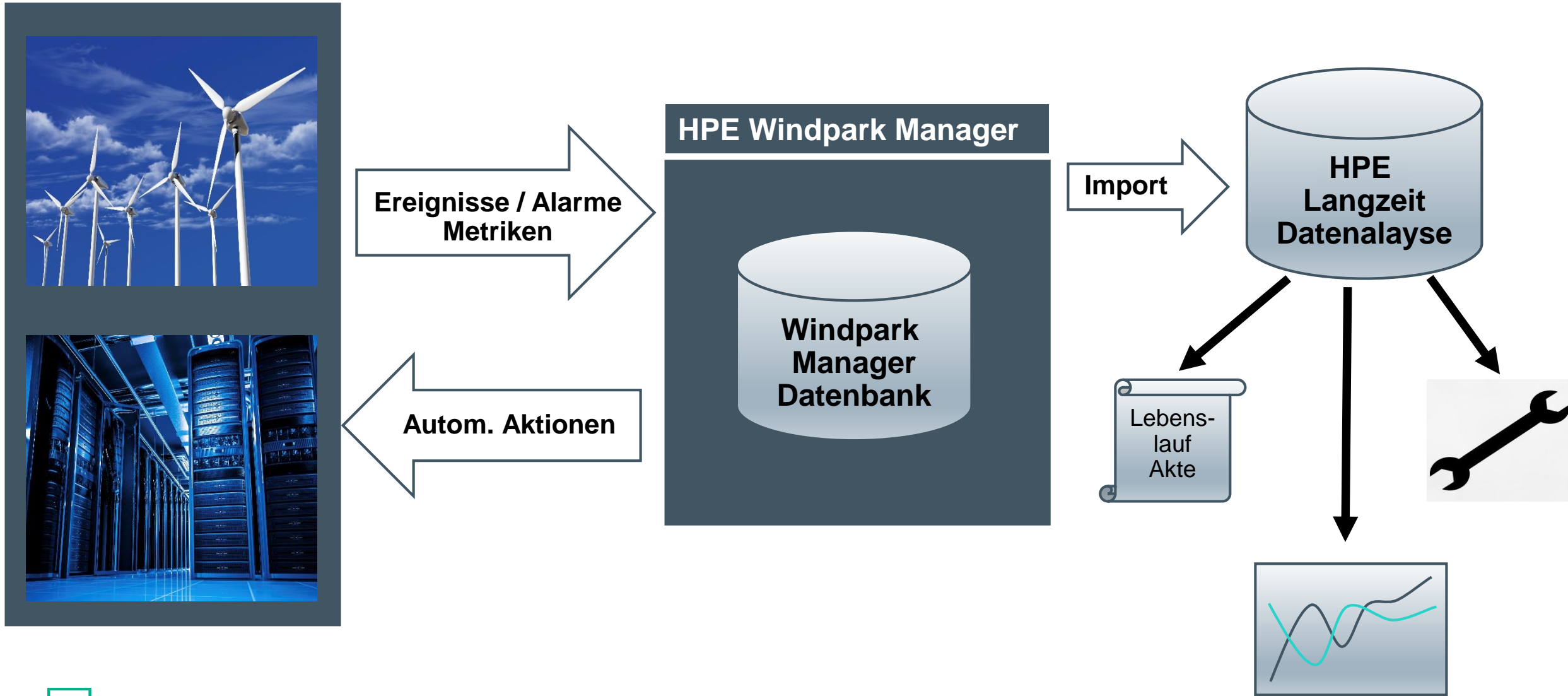
Health Indicators Contributing to KPIs

KPI	Health Indicator	State	V:
TurbineHealth	TurbineStatus	TurbineBroken	N
	TurbineStartStop	StartOK	N

Turbinenproblem

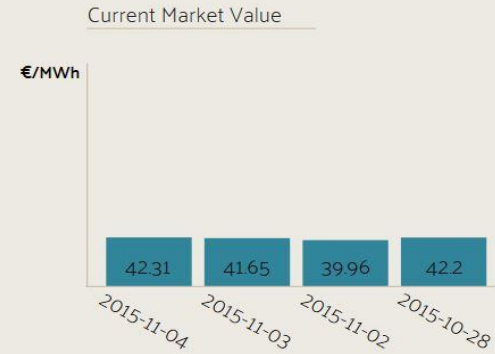
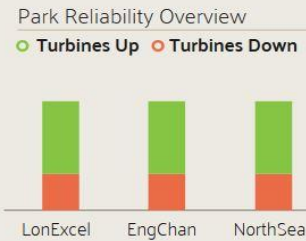
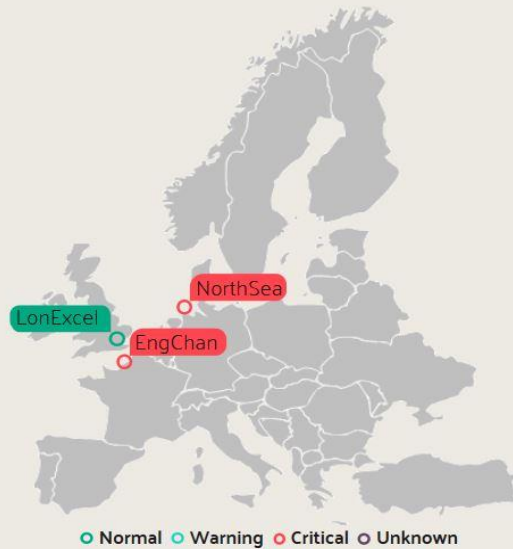
Last Update: 10/29/2015 03:20:26 PM

HPE Langzeit Datenanalyse

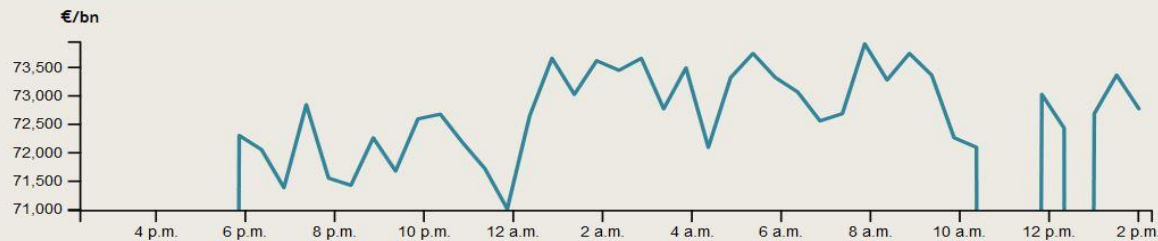


Dashboard sowohl für Desktops als auch Mobilgeräte

Europe Overview



Combined Revenue



News Feed

- 6/11/2015, 2:23:22 p.m.**
Wind turbines: Generating eco-friendly power with metal rotor blades
- 6/11/2015, 2:23:12 p.m.**
Exploiting renewable energy while allowing for protecting biodiversity
- 6/11/2015, 2:23:02 p.m.**
Making green fuels, no fossils required
- 6/11/2015, 2:22:51 p.m.**
How to convert US to 100 percent renewable energy
- 6/11/2015, 2:22:42 p.m.**
Way for eagles and wind turbines to coexist



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**Vielen
Dank**

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