



Enable Requirements Reuse Via Advanced Workflows And Work Item Links

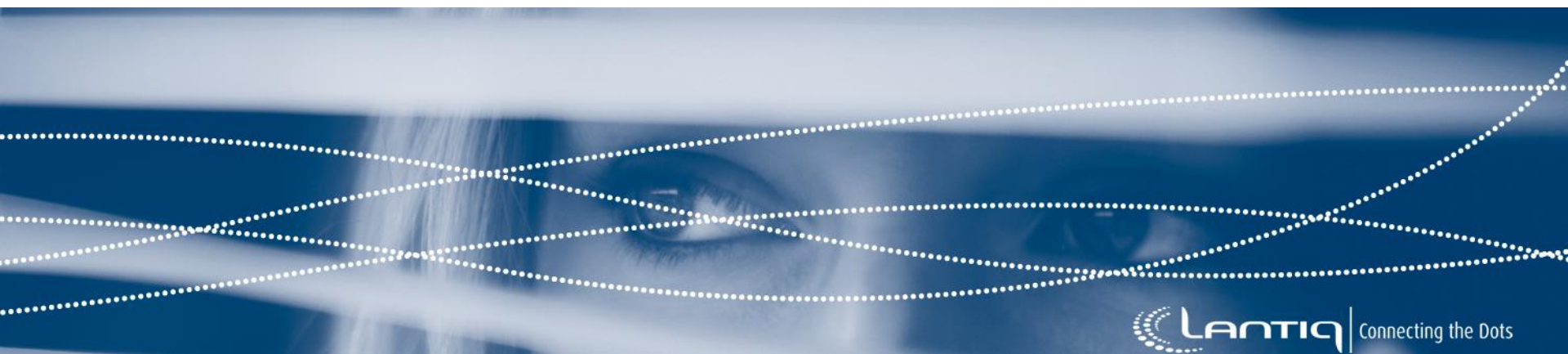
A different way to combine release, feature and requirement linking with workflow capabilities at Lantiq

Polarion User Conference 2014

Bernhard Doleschel

Stuttgart, 2014-10-14

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Why Do We Need Advanced Workflows and Linking?

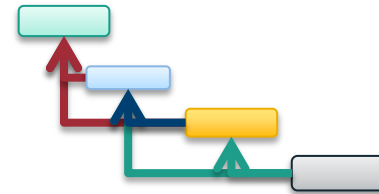
Challenge @ Lantiq



Options



Solution



Benefits



Lantiq at a Glance

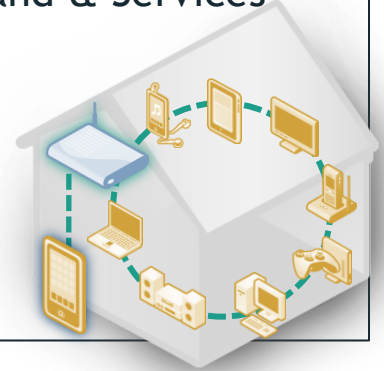
Key Facts

- ~800 employees
- Broadband industry leader
- 100M+ chips shipped/year
- Fabless



Focus Markets

- High Speed Broadband & Services
- Connected Home
- Home Automation
- Voice Products



Continuous Innovation

- 70% R&D employees
- Strong IP position: 2,000+ patents
- Premier customer base
- Very active in standards committees

Global Presence

Locations



Polarion @ Lantiq

2012: Evaluation Req. Tools

2013: Setup of Polarion

2014: Change Usage Model



- 17 Projects
- 10k Work Items
- 200 pot. Users
- ~20 active Users

- Linux VM on ESXi Cluster, 4 CPU
- 8 GB RAM
- 10 GB NFS Filer Share
- HP ALM & Atlassian Jira sync
- Ext: Wiki Scripting, LDAP sync, Visio Plugin with REST

Bernhard Doleschel

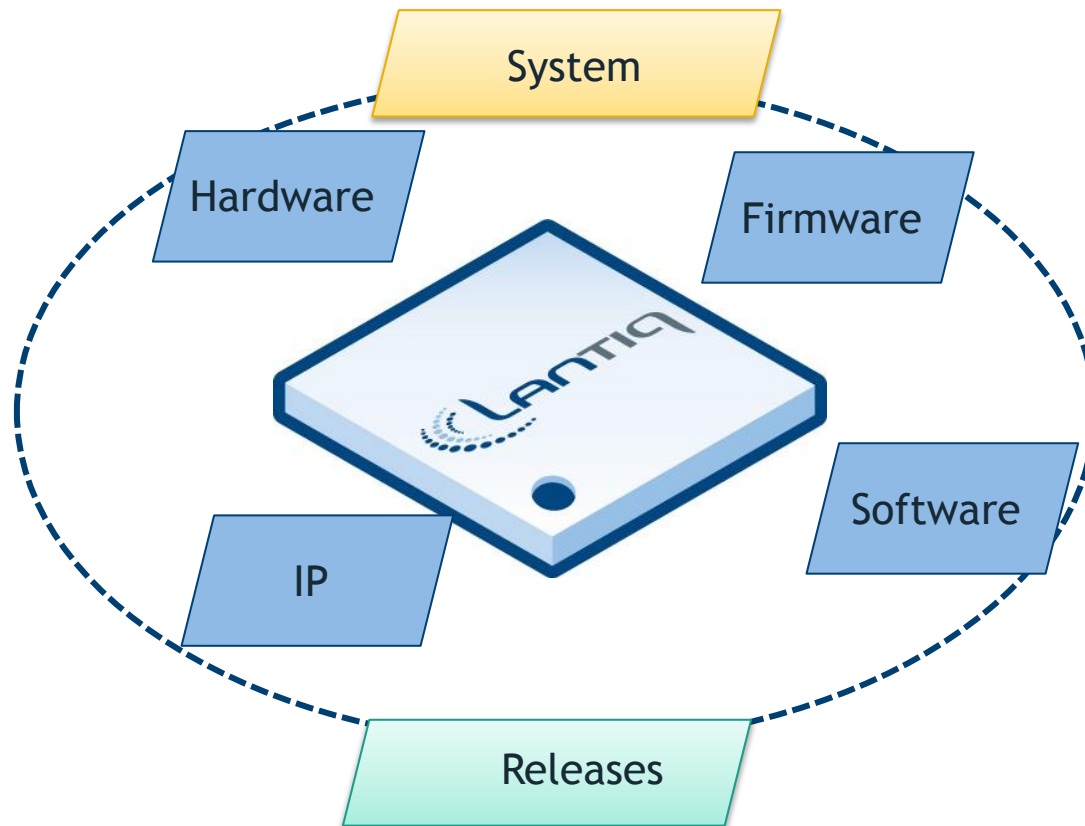
b.doleschel@lantiq.com

IT Business Analyst



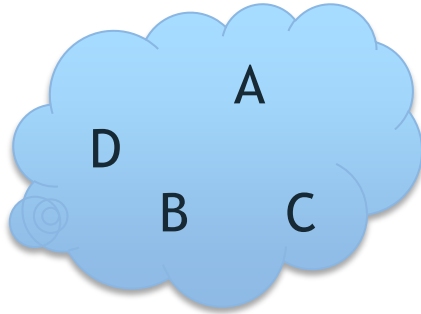
Requirement Engineering
Verification & Test Management
Technical Documentation

Product Development



Roles: Marketing, System Engineering, Architect, System Development, Verification, Documentation, ...

Targets

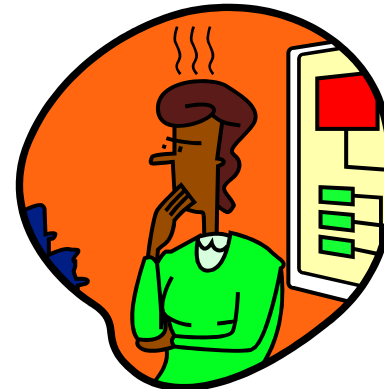


- Handling of
 - Release
 - Features
 - Requirements
 - Tests, ...

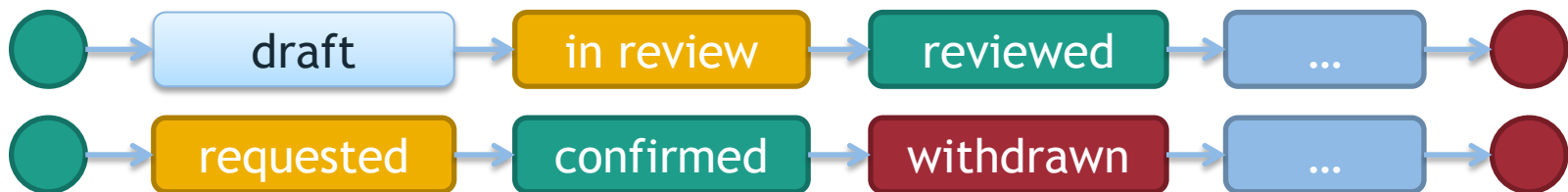
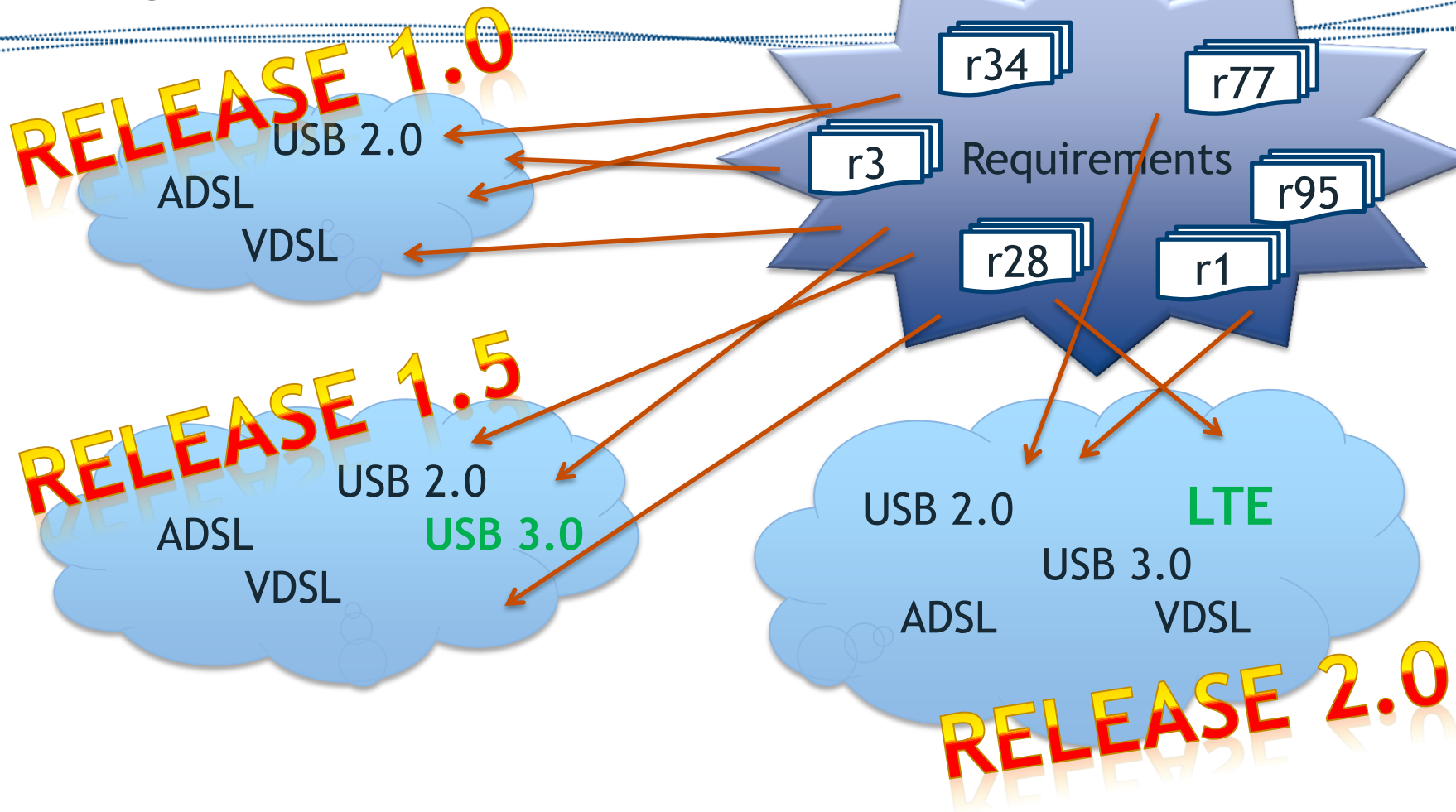
- Reuse items - keep the overview!

- Workflows for
 - Item status
 - Project planning

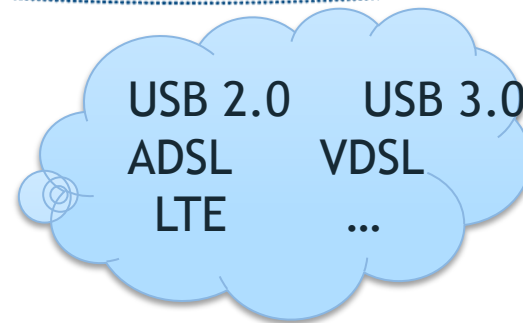
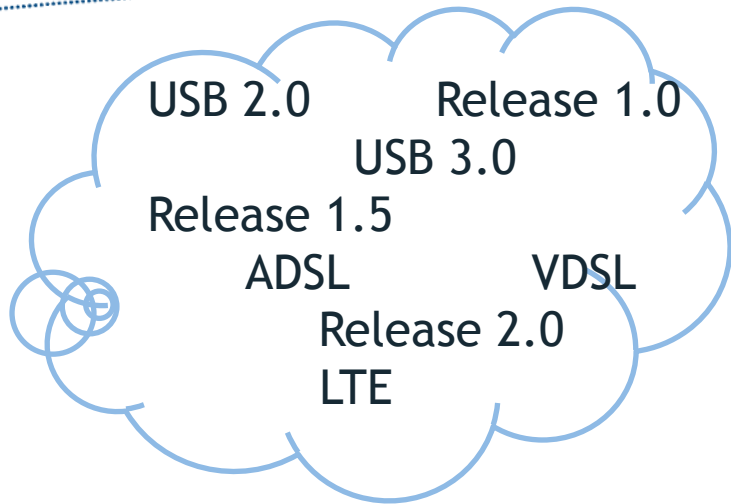
- Relation Management



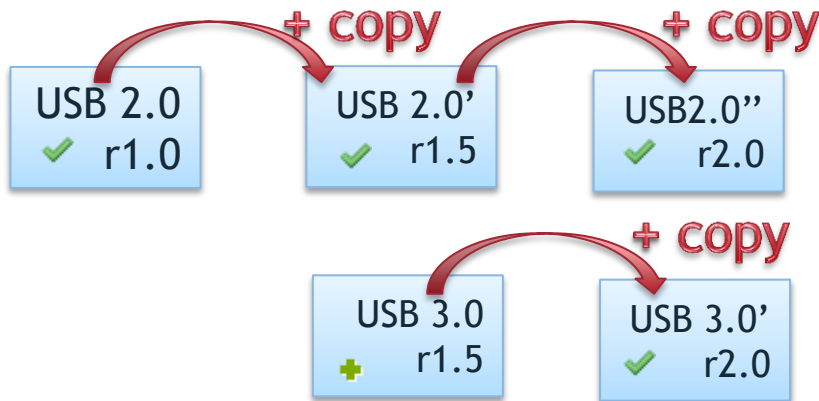
Challenge: Feature Cloud



Option: Out-of-the-box-approach

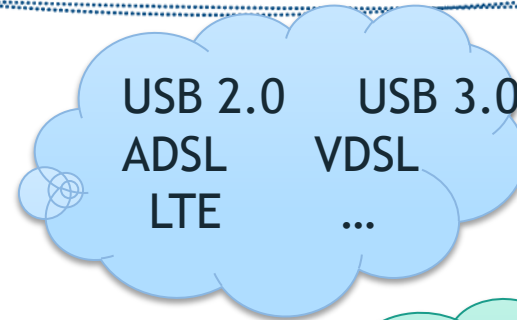
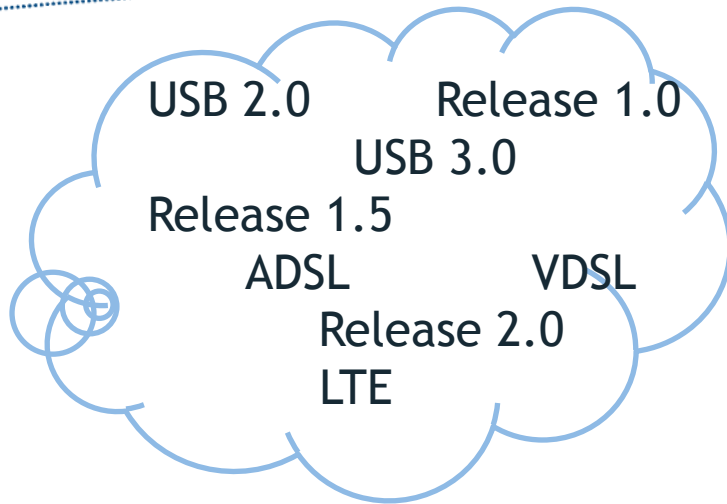


State: { + ✓ × ... }
Release: { 1.0, 1.5, 2.0, ... }



- ✗ Handling of release: no details
- ✗ No reuse
- ✗ Workflow combined
- ✗ Relation setup additionally
- ✗ Overview lost

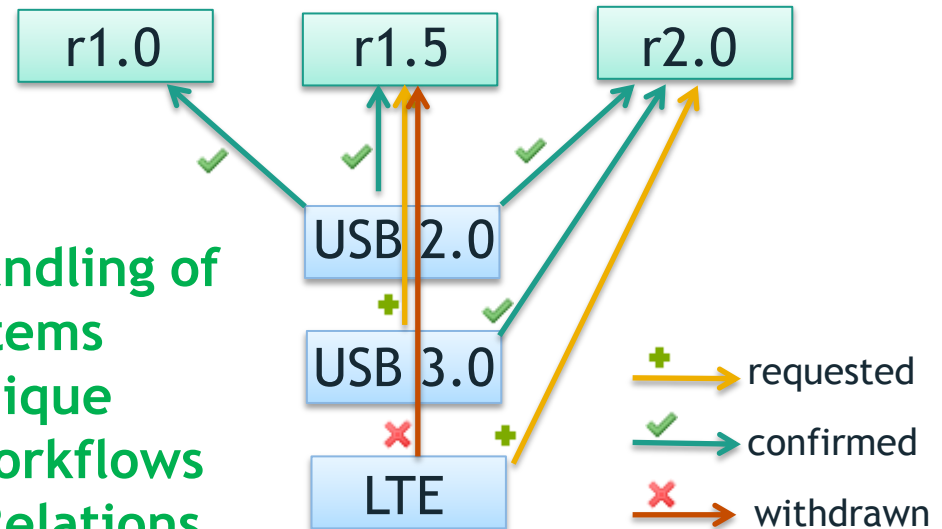
Option: Lantiq's Way



Item Workflow:



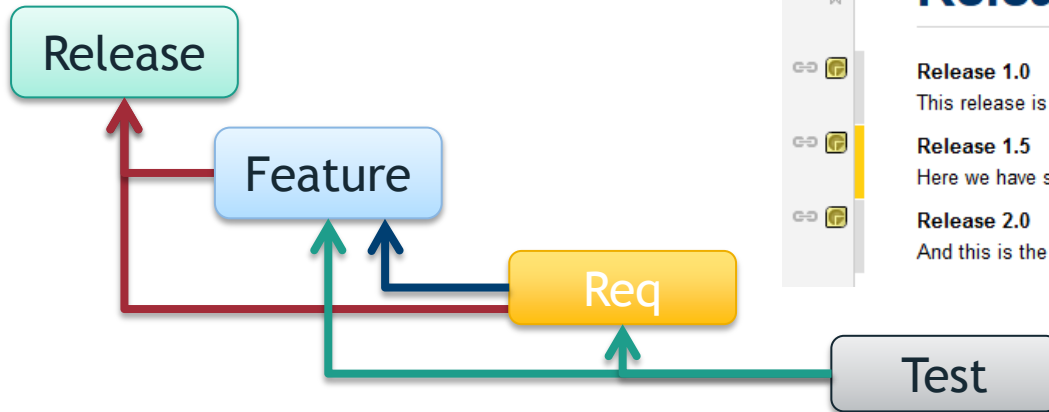
Relation Workflow:



- ✓ Separate Handling of all kind of Items
- ✓ Reuse as Unique
- ✓ Different Workflows
- ✓ Organized Relations

Setup of Lantiq's Way

Step 1: Setup



Step 2: Content Releases

Release 1.0
This release is the first customer demo.

Release 1.5
Here we have some more new features

Release 2.0
And this is the final solution.

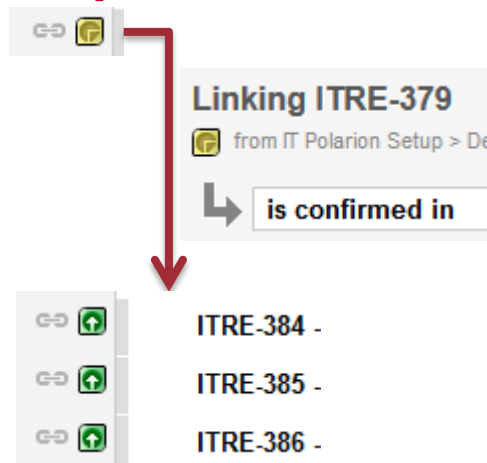
Requirements

- ITRE-388 - r1
- ITRE-389 - r3
- ITRE-390 - r28
- ITRE-391 - r34

Features

- ITRE-382 - USB 2.0
- ITRE-383 - USB 3.0
- ITRE-384 - ADSL
- ITRE-385 - VDSL
- ITRE-386 - LTE

Step 3: Link



Work Item Property

ITRE-379 - Release 1.5

Links

Edit Links

has parent

- ITRE-381 - Releases

requests

- ITRE-383 - USB 3.0

confirms

- ITRE-382 - USB 2.0
- ITRE-384 - ADSL
- ITRE-385 - VDSL

withdraws

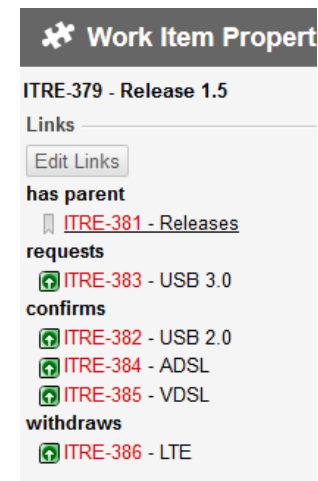
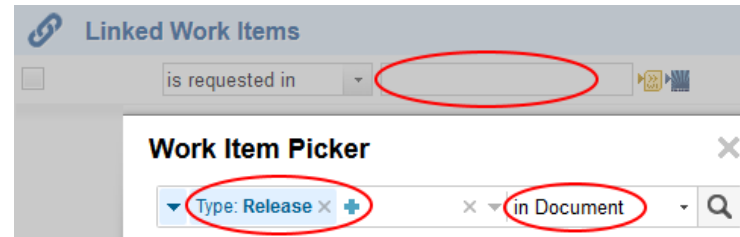
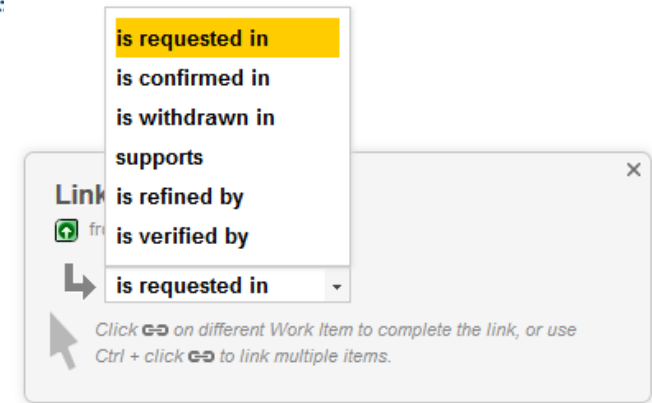
- ITRE-386 - LTE

Linked Work Items

Suspect	Role	Title
	confirms	ITRE-382 - USB 2.0

But ...












- Link Setup
 - KISS-principle
 - Think well on structure
 - Planning workflow: few steps only
- Linking Work
 - Time consuming: one-by-one
 - Remember ID's
 - “Referenced Release” in requirement document
- Overview
 - Slow work item properties window
 - Long link lists
 - Matrix view limited (order)



Lantiq Extension: Wiki Page “Workitem Matrix”

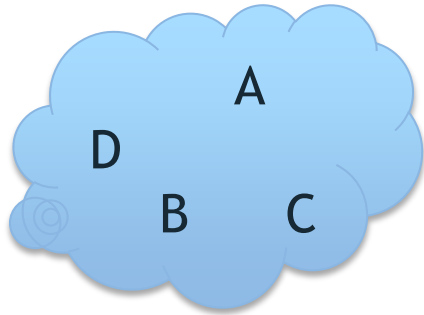
- Macro based
- Preset of Columns
- Preset of typical row items
- flat or structure listing
- Checkboxes for planning actions
- Export to PDF and Excel

- But ...
 - Development effort/cost
 - Usability / Performance

outlineNumber	WorkItem	 ITRE-380 Release 2.0	 ITRE-378 Release 1.0	 ITRE-379 Release 1.5
	 ITRE-387 Features			
1	 ITRE-395 USB Features			
1-1	 ITRE-382 USB 2.0	<input type="checkbox"/> ✓	✓	✓
1-2	 ITRE-383 USB 3.0	<input type="checkbox"/> ✓		+
2	 ITRE-396 Communication			
2-1	 ITRE-384 ADSL	<input type="checkbox"/> ✓	✓	✓
2-2	 ITRE-385 VDSL	<input type="checkbox"/> ✓	✓	✓
2-3	 ITRE-386 LTE	<input type="checkbox"/> +		✓
Amount of provided Workitems by role		✓ = 4 + = 1 ✗ = 0	✓ = 3 + = 0 ✗ = 0	✓ = 4 + = 1 ✗ = 0

9 items found

Achievements



- Handling of
 - Release
 - Features
 - Requirements
 - Tests, ...

✓ Separate Handling of all kind of Items

- Reuse items - keep the overview!



✓ Reuse as Unique

- Workflows for
 - Item status
 - Project planning

✓ Different Workflows

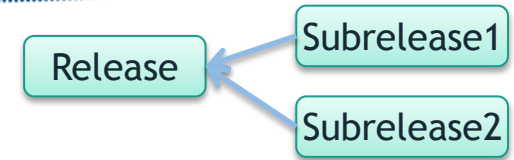
- Relation Management



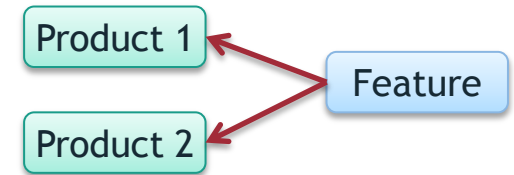
✓ Organized

Additional Benefits

- Product & Release Tree

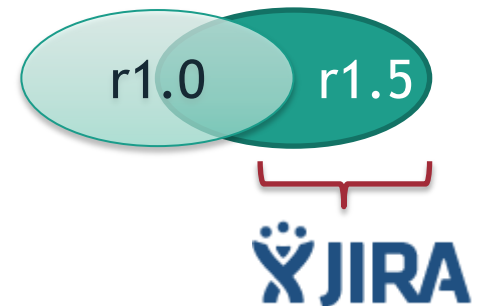


- Feature Overview Table for customer



- Define Features, Requirements, ... only one time

- Link Req to development specification / task



Thank you



LANTIQ

Connecting the Dots

Bernhard Doleschel
b.doleschel@lantiq.com



Polarion User Group Munich
@ LinkedIn - @XING

Meeting January 2015