BACKUP SLIDES
UMF IN A NUTSHELL
CAPABILITY LEVELS

0 – Reliable operation of a standalone NEM
  o 0.1: Reliable decision making under noise
  o 0.2: ... with context awareness
  o 0.3: ... with prediction

1 – Trustworthy interworking of NEMs in a Team
  o 1.0: Orchestrated Team work with maximal utility
  o 1.1: ...with sharing of relevant context changes
  o 1.2: ...with sharing of relevant predictions

2 – Seamless Deployment of NEMs, NEM Teams
  o 2.0: NEM/NEM Team Lifecycle Management
  o 2.1: ...with governed context sharing
  o 2.2: ... with governed knowledge building
**UMF IN A NUTSHELL**
**CAPABILITY LEVEL 0.0**

**Sense**
- Measures, Receives, Retrieves, Estimates, Etc.
- Current values Of KPI's

**Rules**
- Thresholds, Weights, etc.

**Act**
- Increase Or decrease Parameter values

**GOV**
Decides based on rules when and how to act

Any means (e.g. SNMP) to manage the CONFIG

**KPI's**

**Parameters**

**Noise Filtering**
Operational data only

**D.Rules**: Decision rules
D.Rules: IF KPI_i < T_i THEN P := P + δ

Event, Date, Location
UMF IN A NUTSHELL
CAPABILITY LEVEL 0.1

Event, Date, Location

Time, location, Power, load, Media, trust,...

Contexts

KPI’s

Sense

Rules

Decision

Act

GOV

Any means (e.g. SNMP) to manage the D.CONFIG

Decides when and how to act based on rules

D.CONFIG.

Measures, Receives, Retrieves, Estimates, Etc. Current values Of KPI’s

Increase Or decrease Parameter values

Parameters

Thresholnds, Weights, Context handling, etc.

Operational and context data

(D+C).Rules::=+Context handling rules
IF KPI_i<T_i & Time= Busy Hours THEN P:=P+δ
UMF IN A NUTSHELL
CAPABILITY LEVEL 0.2

Any means (e.g. SNMP) to manage the D.CONFIG

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**UMF IN A NUTSHELL**
**CAPABILITY LEVEL 1.0**

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(D). \( T.\text{Rules}=\text{Decision-in-Group rules} \)
IF KPI
\(_i<\text{T}_i \) & Promised Utility Increase is the Highest in the Team THEN \( P:=P+\delta \)

\( T.\text{Rules}=\text{Team Behaviour Rules} \)
On BOOT send JOIN(TEAM∗);
IF Time=Period & KPI
\(_i<\text{T}_i \) THEN SEND(TEAM∗, Utility_Promise), etc.

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**Event, Date, Location**